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GUIDE TO MAKING  
APPRAISALS OF POTENTIALS  
FOR  
OUTDOOR *RECREATION* DEVELOPMENTS

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The purpose of these guides is to provide a systematic approach to appraising the potentials for future outdoor recreation development in an area the size of a county or small group of counties. It can be adapted to areas such as watersheds or trading areas of similar size. The information it provides and the conclusions reached are useful in recreation programming and planning by soil and water conservation districts, counties, and by agencies working in such areas. It is intended that the report of the appraisal in any area be made available to all who can profit by it.

The procedure is basically one of group judgment. Its accuracy and reliability will depend heavily on the knowledge of the natural resources of the area being appraised that is possessed by the appraising group. They will have a substantial body of factual information to use as well as their own experience. This will be in the form of inventories of important recreational resources and statistics on people, highways, climate, and land use. The use of data on people and highways that relate to recreation potentials carries this analysis somewhat beyond the appraisal of natural resources alone. This is done to make the appraisals more realistic and useful. It does not, however, provide an estimate of needs or a market analysis. These require further determinations of the desires and intentions of people; also, prospective demand must be related to existing developments in order to arrive at the requirements for new development.

Selection of the small group to make the appraisal of potentials in a county is very important. It may consist of four or more representatives of resource agencies who are intimately familiar with local resources. The group may be selected from the Extension Service, Soil Conservation Service, State and Federal forestry agencies, State and Federal wildlife agencies, State and Federal parks agencies, county or State highway agencies, or others. In addition to the basic group, consultations may be needed with representatives of the local historical society, Farmers Home Administration, soil and water conservation district governing body, ASC county committee, and others from the first-named resource agencies that do not participate throughout.

The usual schedule for making an appraisal of recreation potentials calls for gathering data and making the required inventories in advance of the appraisal itself. The first requirement is selection of the major likely sources of urban vacationing clientele - the S.D.U.C.'s (see definitions below). With these locations selected,

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the statistics from the Census of Populations, Census of Agriculture, and the climate records can be compiled by a trained clerk. Certain land-use data and the information on local highways can then be obtained locally to complete the statistics.

The inventories of Natural, Scenic, and Historic Areas, Existing Waters, and Potential Impoundment Sites require local resource specialists to do. The various parts can be assigned to individuals (such as the historic sites), or subgroups (such as the natural and scenic areas). The impoundment site inventory will usually be done by SCS. To the degree desired, all of these can be done by the group judgment process. In addition, an inventory of wild-life species and habitat will often be needed.

With these statistics and inventories completed, the appraising group is ready to "brain-storm" the potentials for each important kind of recreation development. Instructions are given for guiding these sessions - which will usually be chaired by a trained, nonlocal resource specialist. Some of the results will be derived almost automatically by using the gathered facts. Others will be arrived at almost wholly through group judgment. All of the appraisals are subject to final adjustment by group judgment - conclusions which will be reflected in numerical scores (interpreted by adjectives) and backed up by narrative explanations.

This procedure may at first appear to be complicated and voluminous. However, as it is examined and used, it will be apparent that the degree of detail is needed and the results are achieved logically and without too much difficulty. Further considerable flexibility for local adjustment is provided. It gives the sorts of information and answers needed if outdoor recreation development is to proceed soundly on both private and public rural lands.

Two samples of a report of a county appraisal are offered. One is a bare-bones minimum summary that would be useful. The other is the same story told with details and explanations that are useful to local and State agencies and people concerned with recreation development. The group making an appraisal will need to decide just what sort of a report it will make.



### SPECIAL DEFINITIONS OF TERMS

Local Area of Influence (L.A.I.) - the county under consideration together with the surrounding, adjacent counties. For purposes of using county statistics, adherence to county lines may be essential. However, for general purposes, if the surrounding counties do not make a relatively even band, the zone from the boundary of the county under consideration outward for about 20 miles may be considered to represent the outer limits of the L.A.I. The same principle may be applied around a group of counties if that is the unit being appraised. The purpose of the L.A.I. is to define the area where day-use recreation is important.

Selected Distant Urban Centers (S.D.U.C.) - the urban centers (Standard Metropolitan Statistical Areas, Urbanized Areas, and Cities, as used by the Census Bureau) outward from the Local Area of Influence of the county under consideration up to a day's travel distance (up to 300 or more miles) that are selected as the locations from which vacationing people are most likely to come.

Statistics Work Sheet (SWS) - the form on which data is recorded and from which computations are made for use in analyzing certain key elements that apply to recreation potentials. These data include census figures for populations of people, their age groups, occupations and income, highways data, land-use information, and data on climate.

Key Element - any condition or situation that exerts a major influence on the potential for developing any important kind of recreation area or enterprise. Those that widely and commonly apply are: Climate; Scenery and Scenic Areas; Natural Areas; Historic Areas; Soils; Water - Existing Water Areas and Impoundment Sites; Wildlife - Habitat and Populations; Populations of People - Size and Distribution, Age and Occupations, and Income Levels; Proximity and Access; Rural Ownership and Land-use Pattern.

Limiting Factor - a key element that exerts such a negative influence on the potential for developing a kind of recreation area or enterprise that it imposes problems that are difficult or impossible to overcome. This condition may apply over the entire county or to only certain portions of it.

In the appraisal process, three terms are used in arriving at a numerical evaluation. They are:

Multiplier - a number that represents the weighted importance of a particular key element in relation to other key elements. Key elements that are significantly more important than others are assigned a weight number of two or more. This number is multiplied by the rating number to give the score for that key element for that kind of recreation development.

Rating - a number from zero to ten applied to a particular key element to indicate the degree of excellence represented by the key element for a particular kind of recreation development. Zero means that the key element contributes nothing and ten that it is ideal. The rating number is multiplied by the "multiplier" or weight number to give the score for the key element.

Score - a number which is the result of multiplying the "multiplier" (weight number) by the rating for a particular key element in appraising potential for a particular kind of recreation development. The sum of the scores of all the key elements applying to a particular kind of recreation development gives the numerical score for that kind of development.

Recreation Area - any prescribed expanse of outdoor natural resources suitable for recreational use or used for that purpose, either developed or undeveloped.

Recreation Development - any kind of an outdoor area now used for recreation, or planned to be established, or expanded and improved for recreational use.

Recreation Enterprise - a recreation development operated by an entrepreneur for profit.



GUIDE TO MAKING APPRAISALS  
OF POTENTIALS  
FOR OUTDOOR RECREATION DEVELOPMENTS

Appraising the potentials for outdoor recreation is an essential step in planning to meet recreation needs. It should be preceded by an inventory of the existing, developed outdoor recreation areas and enterprises. When completed, the appraisals of potentials can be related to the present and future market demand for recreation or needs.

The appraisal of potentials is an examination of the opportunities for further development of resources for recreation uses. This will necessarily involve more than the natural resources alone since development potential depends also upon people and upon public facilities necessary for development. In this second step in recreation analysis, (the first being a comprehensive inventory of existing developments, both public and private) the potential is analyzed without respect to whether or not newly developed resources are currently needed. The question of need will be covered in the third step of the process - estimate of recreation demand.

Potential for development of recreation areas and enterprises must be examined separately for each type of area or enterprise. Each will have different criteria for evaluation depending upon the recreation activities involved and their requirements. The problem is to make these appraisals without long and costly surveys. It is felt that this can be done by a group familiar with the area of the county or district and with the requirements of the different recreation activities. For most of these activities, some useful information is available from various public and private sources. This can be used in connection with the group judgment appraisal process.

Some standardization of procedure is useful in arriving at the appraisals. Such a process is outlined here, utilizing a method of applying key elements to the analysis. Sometimes one or more of these key elements may be a limiting factor for the kind of development under consideration.

The question of limiting factors is given first consideration. If any key element is limiting, it may be so significant as to make any further consideration of other key elements useless. An element is a limiting factor when it imposes difficult conditions on the use of an area for a given kind of recreation that are hard or impossible to overcome. Thus, a warm climate would make winter sports (snow skiing, etc.) impossible; a long, cold and snowy winter climate might make shooting preserves unfeasible. Thus, climate would be a limiting factor in these cases.

Where a limiting factor renders a type of recreation area or enterprise wholly impracticable, the appraisal of potential is "zero" or "none" and there is no need for further analysis. However, where the factor is only partially limiting, or can be overcome by specified action, the key element involved may be given a rating of from one to ten, depending upon the severity, with one being a very severe limitation and ten no limitation. The appraisal would be made largely in terms of the effect of the limiting factor regardless of the scores of other key elements. Further, in stating the appraisal in narrative terms, the kind of limitation should be noted together with any change that would come about in the appraisal if the limitation were wholly or partly removed.

The area for which the appraisals are desired may be a county, soil and water conservation district, watershed project, RC&D project, river basin or other geographical unit. However, because of its basic nature and because statistics and data are most frequently available on a county basis, the unit of appraisal will generally be a county. Throughout these guides, the term "county" will be used and is intended to mean the basic unit of the area being appraised. Often this will be the same as the soil and water conservation district. Where the area being appraised is composed of two or more counties or parts of counties, the statistical data may be gathered on the group of counties that most nearly equals the appraisal area.

The kinds of areas and enterprises appraised may include any of the twelve listed on the NACD inventory form for existing private recreation businesses plus others that are potentially significant in the area. For each of these kinds used, the key elements must be determined. The key elements commonly associated with the twelve types of areas and enterprises are given below, together with guides for appraising them.



For each element applicable to a kind of recreation area or enterprise, a number is given representing the weight assigned to this element in relation to others. It is used as a multiplier in appraising the element. This multiplier number should reflect the importance of the particular element in relation to the other elements used in appraising the particular kind of recreation development. Standard multipliers are provided, but these may need to be adjusted to fit local conditions. Appraisal of each element is based on group judgment supported by statistics and information pertinent to the problem.

Appraisal of each key element that importantly affects the potential for a given kind of development is expressed by a rating figure from zero to ten where zero-two represents degrees of "Very Poor," three-four "Poor," five-six "Fair," seven-eight "Good," nine-ten "Excellent." The weight number multiplied by its rating number gives its score. The sum of the scores for the applicable elements gives the total score for potential of the kind of area or enterprise.

Total score possible depends upon the total of element weights. For the "Vacation Cabins, Cottages, and Homesites" enterprise (see below) this is 15 and the maximum total score is therefore  $15 \times 10$  or 150. In making a summary appraisal of the potential for such a type of enterprise, its score would thus be related to 150. On a "high," "medium," and "low," basis, dividing the whole into thirds, any score above 100 would rate "high" from 51-100 "medium," and 50 or below would rate "low."

Where the elements apply very unevenly to major segments of the county (district), it may be desirable to appraise two or more segments separately. Thus, area "x" may have a "high" potential for "Vacation Cabins, Cottages, and Homesites" enterprise whereas area "y" has only a "medium" potential, both in the same county. Generally, it is best to appraise the potential for the whole county by adjective and number and then use a narrative supplement to describe its application to different areas.

#### Inclusion and Identification of Recreation Potentials on Public Lands

Information on recreation use and development, and plans for and potentials for development of public lands (Federal, State or local) is presently brought together in connection with development of



Statewide Comprehensive Outdoor Recreation Plans. This information is needed in developing the Appraisal of Potentials in a county so that a full picture is presented and so that the potentials on private lands may be correlated with those on public lands.

The needed data on the public lands may be obtained directly from participating representatives of the public agencies that administer the lands or it may be obtained from the data bank kept by the Bureau of Outdoor Recreation. Where the data is to be obtained from BOR, it will be requested for the counties involved by the State Conservationist through the Washington office of SCS.

It is not expected that the appraisal group will make an independent analysis of the potentials for development of the public lands unless the participating representatives of the public land agencies desire to do so. In that case, they would provide the leadership in incorporating the potentials of the public land areas into the appraisal of potentials for the whole county.

In making the narrative description of the potential for each type of recreation development, the portions that apply to the public lands as presently composed will be identified as such and the portions that apply to private lands will be similarly identified. To the extent that it is feasible, and with the exercise of due caution, parts of the potential of present private lands that are apt to become public lands may be indicated where a useful purpose in future planning may be served.

#### Major Key Elements for Use in Evaluating Recreation Potential

The major key elements to be used in evaluating potentials for outdoor recreation are widely consistent for each kind of recreation development. Where any of these key elements is not important for appraising a kind of recreation development in a county or soil conservation district, it should be omitted. Likewise, any important element for a particular kind of development that is omitted should be added. Further, the typical weights assigned to the various key elements in this guide may need to be adjusted in a particular county (district). Following are those key elements generally needed in various combinations for the twelve standard kinds of recreation developments:

- A. Climate
- B. Scenery and Scenic Areas
- C. Natural Areas

D. Historic Areas

E. Soils

F. Water

Existing water areas  
Impoundment sites

G. Wildlife

Habitat  
Population

H. Populations of People

Size and distribution  
Age and occupations  
Income levels

I. Proximity and Access

J. Rural Ownership and Land-use Pattern

Where an asterisk (\*) follows a key element, it indicates that this element may be a limiting factor, either in the entire county or in parts of it.

A. Climate

Aspects of the climate and their seasonality as they affect various recreation activities and enterprises are to be appraised as either a contributing key element or limiting factor. It may be contributing to some kinds of activities and limiting to others in the same area.

Seasonal temperatures, precipitation patterns, sunshine, and snowfall may be important in various combinations. It is important to appraise climate as a relative matter for many situations, comparing local climate to the climate where the recreationists live. Common influence of climate on recreation potential is given by multipliers below for types of developments where it is an important element.

	<u>Multipliers</u>
I. Vacation Cabins, Cottages, Homes* .....	2
II. Camping Grounds	
Vacation site* .....	2
Pack trips .....	3
Transient .....	1

Multipliers

III. Picnic and Field Sports Areas

Bicycling .....	1
Picnicking .....	1

IV. Fishing Waters\* ..... 1

VI. Hunting Areas ..... 1

IX. Shooting Preserves\* ..... 1

X. Vacation Farms, Ranches\* ..... 3

XI. Water Sports Areas ..... 1

XII. Winter Sports Areas\* ..... 4

Local Weather Bureau data should be used wherever available. All official weather stations in the county should be located as well as stations within a day's travel distance (300 miles or more) at selected distant urban centers where potential recreation clientele reside. A selection among these should be made--usually from three to five--to use as representative of the weather in parts of the county and at the most important Selected Distant Urban Centers for clientele. The State climatologist can provide guidance on this selection and on extrapolating data to use for important sections of the county not represented by a weather station. Location of stations and data for those stations in a State can be obtained by requesting "Climate of the States" for the State involved from U. S. Weather Records Center, Asheville, North Carolina.

The long-term averages needed for each selected station are:

Percent of Possible Sunshine - average for pertinent months and seasons.

Temperatures - average mean by months; no. of winter season days between first and last occurrence of 16° or colder.

Precipitation - average for year and by months; average snowfall for a year.

This data should be placed on Table 7 of the Statistical Work Sheet and used in accord with instructions given under appraisal of potentials for each kind of area or enterprise. It is generally not possible to use the weather data mechanically for rating this element but only to guide judgment.



## B. Scenery and Scenic Areas

Attractiveness of the general surroundings affects the potential for many kinds of outdoor recreation. The natural qualities of the environment--topography, vegetation, wildlife, geologic formations, water--are the major considerations. Manmade improvements or destruction--water impoundments, landscaping, open pit mining, gully erosion, as examples--may be important. For some purposes, scenery should be appraised relative to that where the majority of the recreationists come from.

Scenery is usually important in the kinds of activity areas listed below with usual degree of significance indicated by the multiplier.

	<u>Multipliers</u>
I. Vacation Cabins, Cottages, Homes* .....	2
II. Camping Grounds	
Vacation site* .....	2
Pack trips* .....	3
Transient .....	1
III. Picnic and Field Sports Areas	
Bicycling .....	1
Picnicking .....	1
V. Golf Courses .....	1
VII. Natural, Scenic, & Historic Areas*	
Natural areas .....	4
Scenic areas .....	5
IX. Shooting Preserves .....	
X. Vacation Farms or Ranches	
Farms* .....	2
Ranches* .....	3
XI. Water Sports Areas .....	1
XII. Winter Sports Areas* .....	3

An inventory of scenic areas should be made for the county. Each significant site or area of superior, distinctive, unusual, or unique scenery that is not adequately developed for public use should be named, described (including size and degree of access), and classified. Among suitable classifications are: Mountains (rugged, snow-capped, forested, etc.); hill and valley combinations and valley views with woodlands, farms, etc.; waters (lakes, rivers, rushing streams, placid streams, waterfalls, expansive waters, surf, shores); forests, prairies and other vegetation; striking geologic formations. A standard work sheet provided for the purpose ("Inventory of Natural, Scenic, and Historic Areas") should be used and the locations placed on a county (district map). This information may then be used as a guide in appraising potentials for various kinds of recreation developments in accord with instructions.

### C. Natural Areas

Areas of natural environment that are not badly influenced by urbanization, farming, mining, lumbering, or other human changes are important for several recreation activities and, when adequately distinctive, are the basis for many of the areas covered under VII. "Natural, Scenic, & Historic Areas." These areas may be of great variety. They must be of sufficient aesthetic and cultural interest to attract people for the purpose of enjoying the area itself or for studying it.

Significance of natural areas is indicated below for several kinds of recreation areas. It should be noted that the "natural areas" need not necessarily be on the property of each of the kinds of activity areas listed but only in the vicinity.

	<u>Multipliers</u>
I. Vacation Cabins, Cottages, & Homes .....	1
II. Camping Grounds	
Vacation site .....	2
Pack trips* .....	3
VII. Natural, Scenic, & Historic Areas	
Natural areas* .....	6
Scenic areas* .....	4
VIII. Riding Stables .....	3
X. Vacation Farms & Ranches	
Farms .....	2
Ranches .....	3

An inventory of undeveloped natural areas should be made for the district. This should include distinctive areas of natural environment that represent associations of soil, rocks, water, vegetation, and animal life essentially unaffected by man's changes. They should be good examples of their ecological type. The standard form "Inventory of Natural, Scenic, & Historic Areas" should be used to record the name, location, classification, size, description (including degree of access) and present use of each area. Natural areas that have been included in the Inventory of Existing Recreation Areas should be included here only if they have potential for additional development. Among suitable classifications for natural areas are: Wilderness; desert, prairie, forest, savannah, bog, swamps, marsh, water (lakes, ponds, etc.), shore, botanical associations, animal habitats, mineral-rich areas, caves. The locations and classifications or names should be plotted on a county (district) map. The information in the inventory can then be used as a guide in appraising potentials for various kinds of recreation developments where natural areas are important.

#### D. Historic Areas

Sites of important events of history, or historic structures (buildings, burial grounds, etc.) may offer opportunities for either public or private recreation areas. Local historical societies and libraries can assist in developing lists of such places. For the most part, these may be potentials for developing:

#### Multipliers

### VII. Natural, Scenic, & Historic Areas

Historical areas\* ..... 5

In some areas, presence of distinctive historical sites may be factors in potential for other recreation area developments such as Vacation Cabins, Cottages, and Homes; Camping Grounds; and Vacation Farms and Ranches.

An inventory of these Historic Areas that are not yet developed or that have potential for additional development should be made for the county. The standard form "Inventory of Natural, Scenic, & Historic Areas" should be used to record the identity of each area, its location and description, including present degree of access, restoration, development, and interpretive knowledge. The



location and names of the areas should be plotted on a county map. The information in the inventory can then be used as a guide in appraising potentials for this type of recreation area.

#### E. Soils

Soil conditions are of significance primarily in specific site planning. However, for some kinds of developments, widespread soil conditions may be important in appraising potentials over considerable areas. Where this prevails in substantial areas within the county (district), it should be included in the list of Key Elements. The types of outdoor recreation developments where soils is a Key Element or limiting factor are:

	<u>Multipliers</u>
I. Vacation Cabins, Cottages, & Homesites* ....	1
II. Camping Grounds	
Vacation site* .....	1
Transient* .....	1
III. Picnic & Field Sports Areas* .....	1
V. Golf Course* .....	1
VI. Hunting Areas .....	1
IX. Shooting Preserves* .....	2
X. Vacation Farms & Ranches .....	1
XII. Winter Sports Areas .....	1

It should be noted that soils bear a vital secondary relationship to many kinds of recreation developments dependent on new water impoundments. This is covered separately as a phase of potential for new water impoundments.

Important recreation interpretations of the key soils in the district should be prepared that show soil limitations for various recreational uses. This is needed for general recreation planning in the district as used here in appraising recreation potentials, as well as for operational, on-site planning of individual properties. Where not already available, soil interpretations showing the limitation imposed by soils on different kinds of recreation developments should be prepared.

## F. Water

### Existing Water Areas

An inventory is needed of existing water areas in the district. Because of the special importance of water areas to outdoor recreation, all significant water areas should be included whether presently developed for recreation, partly developed, or undeveloped. All streams, rivers, lakes, reservoirs, bays, oceans that have potential use for outdoor recreation should be included. Small ponds may also be significant if present in substantial numbers but may be summarized as a total. The name, location, and classification of each body of water should be given. In classifying, reservoirs should be distinguished from lakes, tidal estuaries from rivers. Present use and degree of development is needed. Data on flow and level characteristics, conditions of sedimentation and obstruction, surface acres, dimensions, depths, and water quality will be useful. Pertinent biological information will be needed for certain appraisals, including, as applicable, species and population levels of fish and other significant animal life, aquatic vegetation conditions, and water fertility.

This factor has significances in most regions for a large proportion of types of recreation areas.

	<u>Multipliers</u>
I. Vacation Cabins, Cottages, & Homesites .....	1
II. Camping Grounds	
Vacation site .....	2
Pack trips .....	1
III. Picnic and Field Sports Areas	
Picnicking .....	1
IV. Fishing Waters* .....	3
VI. Hunting Areas .....	
Waterfowl ....Include under Existing Wildlife Habitat	
X. Vacation Farms and Ranches	
Farms .....	1
XI. Water Sports Areas* .....	4
XII. Winter Sports Areas .....	1

This inventory should be prepared on the standard work sheet "Inventory of Lakes, Ponds, Reservoirs, and Streams." The names and locations of these waters should also be placed in a district map. Those that are partially outside of the district should have this fact indicated by a footnote in the inventory.

### Water Impoundment Sites

Undeveloped sites having feasible characteristics for impounding water represent an important potential for several kinds of recreation developments. An inventory is needed of these sites as a part of the appraisal of recreation potentials. Only the most general information on soils, geology, watershed hydrology, presence of serious pollutants, and general economic feasibility are to be considered in developing this inventory. For most counties, an inventory by map analysis only is all that is warranted for this purpose. Five classes of impoundments may need to be recognized. Sites over five acres should in most areas be individually identified and located. Ponds under five acres may be estimated, preferably by localities within the district. Where sites for five to twenty-acre impoundments are plentiful, it may be desirable to only estimate them too. Where desired, the size estimate may be indicated only within size classes, rather than being specific. If inventoried this way, suggested size classes are: five to 20 acres, 21 to 100 acres, 101 to 1,000 acres, and over 1,000 acres.

Full advantage should be taken of surveys already made by public agencies that include proposed reservoirs for flood control, navigation, water power, irrigation, pollution control, recreation, or fish and wildlife. Their data should be helpful. This inventory should be coordinated with the Conservation Needs Inventory of Watersheds insofar as possible.

Types of recreation developments that may depend heavily on new water areas are:

	<u>Multipliers</u>
I. Vacation Cabins, Cottages, & Homesites .....	3
II. Camping Grounds	
Vacation site .....	2
Transient .....	1
III. Picnic and Field Sports Areas	
Picnicking .....	1



Multipliers

IV. Fishing Waters .....	2
VI. Hunting Areas	
Waterfowl areas (included under potential Wildlife Habitat Improvement)	
X. Vacation Farms or Ranches	
Farms .....	1
XI. Water Sports Areas* .....	3
XII. Winter Sports Areas .....	1

For each site included in the inventory, an identity by name or number and whether presently in public or private ownership is needed. Its location should be given by stream tributaries on a county (district) map of all such sites. Estimated size in area and volume, a description of the source of water supply and of present use of the area are needed. When sites for cold water (suitable for trout) reservoirs can be distinguished, this should be done. In areas where impoundment sites exist in large numbers, or alternative sizes of development sites are frequent, judgment estimates of number by size class and by localities may suffice.

This inventory should be prepared on standard work sheet "Inventory of Potential Impoundment Sites" and the information used in appraising potential for recreation developments where water is important.

G. Wildlife

Wildlife Habitat

Existing habitat for native and introduced species of wildlife and the potential for improving any of the important types of habitat should be appraised both as to quantity and quality. Judgment should be applied to habitats in relation to their populations or potential populations of species valuable for hunting or nature study forms of recreation. Data on hunting licenses and game harvest will be useful. Naturalists from universities and natural history societies may have information on distinctive habitats for nature observation.

While this factor has its prime significance in relation to hunting areas and natural (history) areas, it also has some importance for I. Vacation Cabins, Cottages, & Homes; II. Camping Grounds (Vacation site); and, X. Vacation Farms or Ranches.

Multipliers

VI. Hunting Areas* .....	5
VII. Natural, Scenic, & Historic Areas	Included as nature observation and study under "Natural Areas."

Wildlife Populations

For each significant game species--bird, mammal and fish--the current prevalence and abundance should be given together with information on its population for hunting or fishing and its manageability in the local habitats.

In addition to the importance of this factor in the types of areas listed below, it also may be significant in I. Vacation Cabins, Cottages, & Homesites; II. Camping Grounds (Vacation site, Pack trip); and, X. Vacation Farms or Ranches.

Multipliers

IV. Fishing Waters .....	2
VI. Hunting Areas .....	3
VII. Natural, Scenic, & Historic Areas	
Natural areas .....	1

In counties where wildlife habitat and populations are fairly complex and are an important recreation resource, it is suggested that an inventory be made of key information. No standard inventory form is included with these guidelines, but one can be developed suitable for local use. The habitats can be correlated with the important species. Species would be grouped into suitable associations such as big game, small game, waterfowl, sport fishes, nongame birds, nongame mammals, species other than birds and mammals, etc. Maps showing distribution of the habitats and indicating levels of populations may be useful. Fisheries information may include fish stocking where that is important.

## H. Populations of People

### Population - Size and Distribution

Since people are the users of recreation areas, their numbers are significant to all kinds of recreation development potentials and are a key element for most. Data are needed on the population of the county, its adjacent counties, of urban centers in this area, and on selected distant urban populations within a day's drive (300 miles or more). Distribution of the urban population in units of different sizes will be needed. In essence, the population of urban centers are needed for those that can reach the county in one hour, two hours, and one day by automobile.

Following are the types of developments and the weights assigned to this element:

	<u>Multipliers</u>
I. Vacation Cabins, Cottages, and Homesites .....	1
III. Picnic and Field Sports Areas .....	3
IV. Fishing Waters	
Warm water fishing .....	1
V. Golf Courses .....	3
VI. Hunting Areas	
Small game .....	2
Big game .....	2
Waterfowl .....	1
VII. Natural, Scenic, & Historic Areas	
Natural areas .....	1
Scenic areas .....	2
Historic areas .....	1
VIII. Riding Stables .....	2
IX. Shooting Preserves .....	2
XI. Water Sports Areas .....	2
XII. Winter Sports Areas .....	1



These population statistics are available in the U. S. Census. Instructions for obtaining them are given on the reverse side of the Statistics Work Sheet. The following five groups of figures are needed for numbers of people:

- (1) The county being appraised (which is the district, or in which the district is located), or the several counties which compose the district. If the district does not follow county boundaries, it is recommended that the counties involved be used as the area for making recreation appraisals and the county data be used.
- (2) The counties which are adjacent to the appraisal county.
- (3) Urban centers of 20,000 or more in the county and adjacent counties.
- (4) Urban centers of 5,000 or more in the county and adjacent counties.
- (5) Urban centers of 20,000 or more outside the county and adjacent counties and within a day's drive of the county.

These population figures for 1960 may be gotten from Tables 6, 8, 10, and 11 of the published censuses. The same data for 1950 can be used in comparison with that for 1960 to estimate 1965 population. By extending the 1950 to 1960 trend by half as much more, an estimate of 1965 can be made that is dependable for our purpose. Similarly, 1980 estimated populations can be gotten. If better, alternative estimates are available they should be used. In arriving at these population figures, it may be desirable to omit certain counties or urban centers if they are either (a) cut off from the county by effective physical or political barriers such as water, mountains, or national boundary, or (b) influenced by more significant recreational areas that would severely reduce the recreation potential of the county being appraised.

The census figures for counties and urban centers should be placed on the standard Statistics Work Sheet and arithmetical procedures followed to arrive at the figures needed for appraising the potential of various kinds of recreation developments. Also, a map of the county (district) and the area for 300 miles or more (a day's drive) around it should be developed with the local and selected distant urban centers shown together with the road system and county boundaries.

### Population - Age and Occupation

Certain characteristics of the population are associated with potential for development of some kinds of outdoor recreation areas, including, age, sex, occupation, education, ethnic background. Among these, age and occupation are commonly key elements and are included in the appraisal for several kinds of recreation areas.

#### Multipliers

#### III. Picnic and Field Sports Areas

Game, play, and target areas (age) .....	1
Bicycling (age) .....	1

#### IV. Fishing Waters

Cold water fishing (occupation) .....	1
---------------------------------------	---

#### V. Golf Courses (age and occupation) ..... 2 |

#### VIII. Riding Stables (age) ..... 1 |

#### IX. Shooting Preserves (age and occupation) .... 1 |

#### XI. Water Sports Areas (age and occupation) .... 1 |

#### XII. Winter Sports Areas (age) ..... 1 |

The data needed to evaluate the age and occupation influence of the population on potentials for outdoor recreation can be gotten from the U. S. Census reports of 1960. Unless local information is available to adjust these elements to 1965 conditions, the census analysis should be used. This analysis can be gotten as follows:

#### Age Classes - Census data for 1960 census for:

Percent of the population of the L.A.I. that is:

- a. From 15 to 29 years old.
- b. From 29 to 44 years old.
- c. From 45 years old up.

These data can be gotten from Table 27 of the Census. (See instructions on back of Statistics Work Sheet.)

Occupation Classes - Census data for county or counties in the district and surrounding counties for:

- (1) Percent of employed people in the "professional, technical, manager, official, and proprietor" census categories as a total. These we will call the "Professional" class.
- (2) Percent of employed people in the "craftsman, foreman, and operator" census categories as a total. These we will call the "Skilled" class.

These data can be gotten from Table 84 of the Census. (See instructions on back of Statistics Work Sheet.)

The data should be placed on the "Statistics Work Sheet" and indicated computations made. These results can then be used in the appraisal of the various categories of recreation developments as they apply.

Wherever other significant local information, such as education levels, is available on the population which affect recreation potentials, it should be used in the appraisal process.

#### Population - Income Level

The economic well-being of the recreating public has a major influence on recreation potential. Family income is of such significance that it is given separate analysis as a key element since income is an index of money spent for recreation. The significance of income as a key element is indicated below:

#### Multipliers

I. Vacation Cabins, Cottages, and Homes .....	2
III. Picnic and Field Sports Areas	
Game, play, and target areas .....	2
Bicycling .....	1
Picnicking .....	1
V. Golf Courses*	
Standard courses .....	3
Miniature golf and driving ranges .....	1



Multipliers

VI. Hunting Areas

Waterfowl areas ..... 2

VIII. Riding Stables ..... 2

IX. Shooting Preserves\* ..... 3

The figure for median family income for the county or counties in the district and surrounding counties may be used as a basic figure. The same figure is also needed for the Selected Distant Urban Centers of 20,000 or more and outside the district and its surrounding counties but within 300 miles (or more in the West). They can be obtained from Tables 36 and 76 of the Census. (See instructions on back of Statistics Work Sheet.)

Median family income for the U. S. was \$5,657 in 1960. For urban areas it was \$6,163. It is suggested that a median family income of \$6,000 in the area under consideration be given a rating of seven for appraisal purposes and that median figures deviating from this be given an increased or decreased rating of one point for each \$500. Thus, any local income figure from \$5,750 to \$6,249 would rate seven; one from \$6,250 to \$6,749 would rate eight; one from \$5,250 to \$5,749 would rate six; etc.

The income data from the census should be placed in the "Statistics Work Sheet" to arrive at the single figure for the district and surrounding counties and another figure for the Selected Distant Urban Centers. The rating for this figure is then used in the appraisal of potentials wherever called for.

These data on the numbers and characteristics of the population are useful in themselves in depicting the present situation. For each of the four classes of data--numbers, age classes, occupation groups, and income level--it is also desirable to consider what probable changes will take place in the years ahead for which planning is being done. How will the element being considered change in the years ahead in comparison with the same change in the whole country? For example, will the median family income increase faster here than generally? Will the age group most concerned with a certain kind of recreation be a significantly larger proportion of the population in 1980 than it is now? And, most important, will this community be a fast-growing one or slow? These judgments, backed up by information on population trends, will affect the final appraisal of potentials for recreation development.

# I. Proximity and Access

All recreation activities are distance-related with respect to the user's home. This usually means the distance from the urban center where he lives to the recreation area, measured by miles or hours. Hence, the distance of the recreation area from its source of clientele is important in varying degrees depending upon the kind of development. This proximity for purposes of outdoor recreation is almost wholly measured by means of the public road system.

For some kinds of recreation areas, the additional element of access is involved. Does the public road system provide access to all potential recreation resources? What parts of the district are served by the special kind of access, the "tourist route?"

The significance of these elements to the different kinds of recreation areas and enterprises is given below:

		<u>Multipliers</u>	
		<u>Proximity</u>	<u>Access</u>
			<u>Local Roads</u> <u>Tourist Rts.</u>
I.	Vacation Cabins, Cottages, & Homesites .....	1	1            -
II.	Camping Grounds		
	Vacation site .....	-	1            -
	Transient .....	-	-            5
III.	Picnic & Field Sports Areas		
	Game, play, & target areas.	3	1            -
	Bicycling areas .....	2	1            -
	Picnicking areas .....	3	1            -
IV.	Fishing Waters .....	1	-            -
V.	Golf Courses		
	Standard & par-3 .....	2	-            -
	Driving range and miniature	3	-            -
VI.	Hunting Areas		
	Small game .....	1	-            -

	Proximity	Multipliers	
		Access	
		Local Roads	Tourist Rts.
VII. Natural, Scenic & Historic Areas			
Natural areas .....	1	1	1
Scenic areas .....	1	2	1
Historic areas .....	1	-	3
VIII. Riding Stables .....	3	-	-
IX. Shooting Preserves .....	2	-	-
X. Vacation Farms & Ranches			
Farms .....	1	-	-
XI. Water Sports Areas .....	1	-	-
XII. Winter Sports Areas ....	1	1	-

The data needed to rate the proximity and access elements may be obtained from county and State road maps and from the U. S. Census. This may need to be interpreted with help from the local highway officials and with the experienced judgment of the appraising team. A map of the county and surrounding counties should be obtained that shows:

- (a) The all-weather roads. These are the Federal-State numbered roads plus the all-weather local roads suitable for recreation traffic. Generally excluded from this definition are: dirt roads; all gravel roads other than well-maintained, wide roads equal to good hard-top roads; poor hard-top, "farm-to-market" type roads.
- (b) The portions of the all-weather roads that may be classed as important "tourist routes." These are the highways, usually in the Federal-State numbered system, that carry large volumes of tourist (that is, recreation) traffic in the tourist season. This traffic is the nonlocal, mostly out-of-State vehicles for which highway people often have data. Limited-access tourist routes should be counted only for the portions that actually serve areas in the district.



- (c) The urban centers of 5,000-20,000 size.
- (d) The urban centers of 20,000 and larger.

Measurements are made on this map to give:

- (a) The miles of all-weather roads.
- (b) The miles of important tourist routes.
- (c) The miles of (a) that are within 20 road-miles of urban centers of 5,000 or more.
- (d) The miles of (a) that are within 40 road-miles of urban centers of 20,000 or more.
- (e) The miles of (a) that are within 20 road-miles of urban centers of 20,000 or more.

Another map of the county with the adjacent counties and area up to a day's drive away is needed. The Selected Distant Urban Centers are placed on this map and circles drawn from the center of the district at the 50 mile, 150 mile, and 300 mile (or a day's drive) zones. The proportion of the S.D.U.C.'s that are in the 50-150 mile zone has special significance. The location of inventoried Natural, Scenic, and Historic Areas are placed on a copy of the first map. The number of these that have access is determined, and the percentage of each. Access to a Natural Area is a road reaching the edge of the area and each such point is considered to serve that part of the area reachable on foot in one hour. Large wilderness areas are exceptions and require less access for their special kinds of use. Scenic Area access is a road within good view of the area. Access to Historic Areas is a road to the site. The locations of potential Winter Sports Areas are placed on the map. The number of these that have an all-weather road to the base (or top) of the site is determined, and the percentage of the total.

The degree of access of the whole area of the district can be gauged by determining the portion that is within one mile of an all-weather road, and the parts of this total that are close to population centers. By multiplying road mileages (c), (d), and (e) above, by two and getting the percentage each is the total area of the district, the access of the district may be appraised.

All of these data and computations are to be placed on the standard "Statistics Work Sheet." The results may then be applied as called for in appraising each type of recreation development potential.

#### J. Rural Ownership & Land-use Pattern

The ownership and land-use pattern of rural areas has particular bearing on the potentials for developing Vacation Farms and Ranches and Hunting Areas.

The potential for Vacation Farms or Ranches depends in part upon the existence of farms or ranches having substantial farmstead or ranch headquarters living buildings, farming or ranching operations that are of interest to urban people. Size of property is also important but may be provided on adjacent public or private land as well as on the farm or ranch property.

The importance of farm ownership pattern for Hunting Area development lies in the feasibility of developing hunting cooperatives or in having large enough properties to organize a hunting enterprise.

This element may also occasionally have some relevance to other types of areas, such as Natural, Scenic, & Historic Areas (for example, the Pennsylvania Dutch farming country). However, the two for which this is a key element are:

#### Multipliers

##### VI. Hunting Areas

Small game ..... 1

X. Vacation Farms and Ranches ..... 3

Data from the "1959 U. S. Census of Agriculture, Volume 1, Counties" is useful in providing indices for appraising these two kinds of development potential. County Table No. 2 includes statistics on acreage of all farms and acreage of farms by different size classes. From this we may determine the percentages of farms that are 180 acres or larger and 100 to 259 acres. County Table No. 5 includes statistics on number of farms by type of farm. From this we obtain the percentage of dairy, livestock, and general farms.

The total acreage of the county is needed also. This should include any urban, public area or other internal sections that may be excluded from the district by law. This figure may be gotten from

Table 6 of the 1960 Census of Population. Estimates are needed of the acreage of public lands and large corporate ownerships open to public hunting. These may be obtained locally or from State and Federal agencies. Summaries of public lands and their uses for recreation may be available from BOR.

These data are placed in the "Rural Ownership Data" section of the "Statistics Work Sheet" and used as directed in appraising potential for the two categories of recreation developments involved.

#### Other (Special Attractions or Limitations)

In addition to the key elements already covered, there may be additional ones that are locally important. These should be included in appraising recreation potential wherever they apply. This is especially important if the special condition is a limitation.

A few examples of other elements and limiting factors are:

Presence of summer theaters, museums, galleries, music festivals, zoos, gardens, arts & crafts centers, etc.

Laws or regulations or lack of legal authorities that affect recreational developments.

Prevalence of pestiferious plants or animals that would render areas unuseable for recreation. This may apply only seasonally.

Management policies and practices that affect use of resources for recreation (fluctuation of water levels, exclusion of public from forests, land posting).

Activities such as summer auctions, fairs, festivals, contests, etc.



## Appraising Potentials for Twelve Kinds of Recreation Developments

Twelve standard kinds of outdoor recreation areas and enterprises (developments) were used in making the inventory of existing private areas and enterprises sponsored by NACD. These same twelve are suggested for use here, adjusted by deletions or additions as needed in each county. Each is discussed below in terms of the key elements to be used in the appraisal. If other key elements are needed locally, they should be added or substituted as appropriate. If any key elements included here are not significant locally, they should be dropped. The multiplier numbers given are considered to be widely applicable. However, each should be reviewed to make sure it reflects the proper importance of the key element to other key elements for the type of development involved. Adjustments in the multipliers should be made where needed.

An asterisk (\*) is used to denote those key elements that may, under certain circumstances, be limiting factors for the type of development involved. It is suggested that the asterisked elements be considered first in the appraisal process. Where such an element proves to be so limiting in the county, or in specific parts of the county, as to make the recreation development impossible or impractical, further consideration of the type of development may be abandoned for the whole or specific parts of the county. Where the key element is severely but not completely limiting, the narrative summary should explain its effect on the potential.

The chart of key elements and multipliers for each type of development is set up so that it can be used as a scorecard if desired. Columns for the assigned ratings and scores for each key element are provided and a place for the total score (sum of element scores). These scores may be transferred to the "Summary of Appraisals of Potentials for Outdoor Recreation" sheet for convenience in showing the results of all appraisals.

### I. Vacation Cabins, Cottages, and Homesites

The key elements of appraisal and the multipliers suggested for each are:

<u>Key Elements</u>	<u>Multipliers</u>
A. Climate* .....	2 x =
B. Scenery* .....	2 x =

<u>Key Elements</u>	<u>Multipliers</u>	
C. Natural Areas .....	1 x	=
E. Soils* .....	1 x	=
F. Water		
Existing water areas .....	1 x	=
Impoundment sites .....	3 x	=
H. Populations of People		
Size and distribution .....	1 x	=
Income levels .....	2 x	=
I. Proximity and Access		
Proximity .....	1 x	=
Access roads* .....	<u>1 x</u>	=
Total Key Element Multipliers (Weights)	15	Score
Total Possible Score	150	
High Potential	101-150 score	
Medium Potential	51-100 score	
Low Potential	0- 50 score	

Vacation Cabins, Cottages, and Homesites represent vacation living space in an area desirable for various recreation activities. This includes areas with living quarters developed for rental to clients, areas where vacation homes are built for sale to clients, and organized group "camps" that use permanent buildings. Rural vacation living is the one activity always supplied. Various other recreation activities may be available on the area as a part of the service purchased. Still other activities may be available in the vicinity on other developed areas, public and private.

Some of these developments combine individual ownership of vacation homes and lots with organized services provided on a group or community basis. Upkeep and maintenance of the properties may be a part of such services as well as recreation activities, sources of supplies and such personal services as laundries, etc. In some developments, privately owned vacation homes may be available for rental, furnished, when not in use by the owner, with rentals and supervision handled by the development operator. Depending upon the character of the area, building styles may be chalet, beachcomber, adobe, log cabin, etc. or they may not follow a uniform style.

This type of development is almost exclusively one for private enterprise. It provides employment in construction of living quarters, operation of group camps and cluster developments, and operation of recreation facilities. Local income is enhanced by increased property taxes and sales of supplies and services as well as through new jobs.

The key elements that need to be scored in appraising the potential for Vacation Cabins, Cottages, and Homesites are discussed below as they relate to this enterprise.

The climate element as applied here relates to its desirability for vacationing purposes. It should be judged in relation to the climate in surrounding areas, especially in the S.D.U.C.'s, where the potential clientele are expected to come from. It may also be desirable to judge it separately for popular vacation seasons, usually summer and winter. Favorable aspects of climate for vacationing are: Lots of sunshine; no protracted rainy periods; cool summer night temperatures; warm winter temperatures; low humidity. A zone up to a day's drive outside the county is likely to be the area from which most vacationing clients would come. The climate in the county (or particular parts of it) must be significantly better for vacationing than the climate in the urban centers of the outer zone. Guidance in judging the climate element may be gotten by comparing Weather Bureau data for areas of the county thought to be suitable for Vacation Cabins, Cottages, etc. with that for the urban centers likely to supply the clientele. Data to be compared may include the percent of possible sunshine in the vacation season (summer or winter as the case may be), the amount of precipitation during the vacation season, and the mean monthly temperatures for the same period. Substantial favorable differences in the county figures compared to those of the urban areas would warrant a high rating. While a positive statistical correlation between sets of data for local and distant weather stations is not feasible, in general, a rating of five may represent an equality of the data, and a favorable difference of one in the monthly averages (percent, inches, or degrees) may add a point to the rating, an unfavorable difference of two, for another example, subtracting two points, etc. If the climate in the county is definitely unfavorable for outdoor vacationing, it would be a limiting factor.

Scenery must be examined as a relative matter, much as with climate. Are the combinations of land formations, water and vegetation in the county clearly more attractive, or differently attractive, than those in the client zone near the S.D.U.C.'s up to a day's drive away? If so, this may be "vacation country" for the region it is in, even though it may lack superb scenic attractions such as the rockbound coast of Maine, the Great Smokies, Niagara Falls, or the Grand Canyon. The Inventory of Scenic Areas may furnish a guide to judging this



element for Vacation Cabins, etc. Prevalence of attractions such as mountain views, valley vistas, and the like in the inventory would reflect a favorable rating. Insofar as feasible, this rating should also be influenced by a comparison of the scenic virtues of the county with other counties and areas that might compete for the same business. On the other hand, if there is a general lack of distinctive scenery, this element may be a limiting factor. The presence of existing resorts, group camps, and vacation rental cottages may be indicative of the vacation attractiveness of the local scenery and scenic areas. The question then becomes: Is there more scenery in undeveloped areas like that already developed? Or, have other elements heretofore prevented the use of some local scenic areas for vacations?

Interesting natural areas are part of the drawing power of a locality for vacationing customers. All significant natural areas should be identified in the inventory and appraised as to their uniqueness, attractiveness, and scientific, aesthetic and cultural values. Developed natural areas are parks, wildlife refuges, outdoor laboratories, etc. Undeveloped ones may include glens, gorges, mountains, cliffs, marshes, swamps, forests, water areas, bogs, prairies, sand dunes, shores, canyons, caves, waterfalls, streams, and so on. Natural areas are part of the "Scenery" but are specific parts that deserve special consideration as attractions for vacation areas. A judgment is needed as to the attraction of the natural areas in the county and, to the extent possible, in comparison with other areas that might attract clientele from the same urban sources.

Widespread soils characteristics that are not covered under "Scenery" or "Natural Areas" and that affect the potential for vacation living places are generally negative. Large areas of soils having severe limitations that affect water supply, waste disposal or building construction, or that are excessively muddy and slow to dry out, or are very dusty in dry weather should be identified. These affect the potential for development and may be limiting factors.

The inventory of existing water areas will reflect a phase of the potential for developing vacation living accommodations. This may be judged by the extent of undeveloped shorelines and vista points having desirable recreation attributes. Where such areas abound, the rating of this element for Vacation Cabins, etc. will be high; where they are mostly already developed, it will be low. Details given in Category XI on analysis of existing water areas will be helpful here.

Water Impoundment Sites that are not yet dammed or committed irrevocably to an alternative and incompatible use constitute an important key element in evaluating Vacation Cabins, etc. potential in many areas. Impoundment sites that exceed five acres are identified in the inventory and classified as to suitability for various recreation uses. Sites that are relatively deep, lacking in extensive shallows, and with a prospect of stable water levels are best suited for this type of development. Where the adjacent terrain has many vistas and overlooks above the sites, the rating is improved. The rating is based on a summary judgment as to the prevalence of good sites or it may be handled as suggested in Category XI, "Water Sports Areas."

The size and distribution of the population has a significant influence on the potential for Vacation Cabins, etc. enterprises. Current statistics are needed plus projections for 1980. Since the rental or sale of vacation cabins, cottages, and homes largely involves a clientele that is on vacation, it mainly concerns people who live at some distance from the vacation areas in the county. However, more and more people are acquiring second "vacation" homes close to their homes where choice water areas and other resources are nearby. Hence, some of the potential for vacation homes may be in the L.A.I.

A zone extending a day's drive outward around the county will encompass the majority of potential users. These are primarily urban people who seek a change from their city life when on vacation. The total number of people projected to be in the S.D.U.C.'s in 1980 reflects this market potential. (Table II, Column 2-3, Line 61 on S.W.S.) A rating of one for 30,000, two for 70,000, three for 120,000, four for 180,000, five for 250,000, six for 330,000, seven for 420,000, eight for 520,000, nine for 630,000, and ten for 750,000 or more is suggested.

Income level of the population is generally important in determining recreation development potential and is especially so in this case. The potential clients are almost wholly from those whose family income is above the general average. Income information must apply in this case to the area where the clients come from rather than the local county - that is the S.D.U.C.'s. This is Table V, Column 12, Line 31 on the S.W.S. Rating of median family income for the S.D.U.C.'s may follow a scale of one for \$3,000 and one point added for each \$500 more. Thus, a \$5,500 median income would rate six, \$6,500 would rate eight and so on.

Proximity to cities of the vacation areas in the county as a key element is partly covered in the population size and distribution element already discussed. The population was figured for the distance zone most closely related to use of vacation sites up to a day's auto travel out from the county. However, the location of urban centers, especailly S.D.U.C.'s, within that zone at varying distances away from the county presents an additional consideration. If an urban center is 300 or more miles away, it is getting to the outer edge of the major vacation clientele area. Urban centers closer are more favorably located. This has particular reference to weekend use of rental or owned properties for which the customers will rarely travel over 150 miles. Thus, a pattern of urban locations in the inner 50 to 150 mile portion of the up-to-300-mile band will give a relatively high rating whereas one of the urban centers located in the outer portion gets a lower rating. The number of the S.D.U.C.'s in the 50-150 mile zone (Table VI, Column 16, Line 10 on the S.W.S.) may give a suitable rating for this element or be used to determine the rating.

Access roads as related to the potential for vacation living areas have reference to the accessibility of the desirable areas to the highways system. The more adequate the access roads, the higher the rating will be. In undeveloped country where there are few roads and many isolated areas, the lack of access may be a limiting factor for the purpose of present planning. A measure of this accessibility can be obtained by determining the area of the county in square miles that is within one mile of an all-weather road. This is Table VI, Column 16, Line 14 on the S.W.S. If the "vacationing country" in the county is concentrated in one or more parts, a more accurate scoring of the access element may be gotten by measuring the miles of all-weather roads traversing the "vacation country," multiplying it by two and dividing the result by the square miles of "vacation country." The areas that have the general attributes of "vacation country" can be placed on the county road map as a result of the consideration of elements A to F above. The ratio multiplied by 100 gives the percentage of the area that is accessible. (Table VI, Column 17, Line 14.) Scoring may be made on the basis of a point for each ten percent.

## II. Camping Grounds

Three different types of camping areas and enterprises may need to be recognized since there is considerable variation in the key elements that apply. They are: Vacation site camping grounds--where the camper frequently stays several days to



several weeks; pack trip camping--which involves a headquarters for a horse or canoe camping trip and an extensive area of natural or wilderness country, frequently public lands; transient camping grounds--where the camper stops over night while traveling to a vacation site. Sometimes a succession of stops at transient sites makes up a camping vacation. The key elements commonly involved are:

<u>Key Elements</u>	<u>Multipliers</u>					
	<u>Vacation Site</u>		<u>Pack Trip</u>		<u>Transient</u>	
A. Climate	2* x	=	3 x	=	1 x	=
B. Scenery	2* x	=	3* x	=	1 x	=
C. Natural Areas	2 x	=	3* x	=		
E. Soils	1* x	=			1* x	=
F. Water Areas						
Existing	2 x	=	1# x	=		
Water Impoundment Sites	2 x	=			1 x	=
I. Proximity & Access						
Access Roads	1 x	=				
Tourist Routes					5* x	=
Total Element Weights	12		10		9 Total Sc.	
Total Possible Score	120		100		90	
High Potential	81-120		71-100		61-90	
Medium Potential	46- 80		36- 70		31-60	
Low Potential	0- 45		0- 35		0-30	

# See note in text regarding multiplier for canoe camping.

The vacation site camping ground is a pleasant area organized to accommodate families and others vacationing with tent, camper or trailer facilities. (It should be noted that "group camps" that use permanent buildings for living, eating, etc., are not included here but rather in the previous category, "Vacation Cabins, Cottages,

and Homesites.") While the enjoyable environment of attractive climate and scenery is the main idea, supplementary recreation activities are usually wanted--either on the area or nearby. Most commonly associated with camping are swimming, fishing, boating, and nature study. Access from State or Federal highways should be easy--rarely more than a mile or two unless the resources are exceptional. Both public and private areas cater to the vacation camper. Public camping grounds are associated with distinctive natural areas, such as parks, and are usually limited to simple facilities and minimum services. Private camping grounds often cater to those desiring more elaborate or exclusive facilities and greater services. Shade is usually important and is commonly provided by trees.

Pack trip camping is exclusively associated with exceptional natural areas, often of the wilderness type. This element, "Natural Areas," should be evaluated first for horse or hiking pack trips. For canoe trip camping, the existing waters key element should be evaluated first and the multiplier increased to three or four. For most localities, the lack of outstanding natural areas or wild waters will make these limiting factors. Where a locality does have a good rating for natural areas or canoe-type waters, the other key elements need evaluation. Only sites within or very close to the natural areas or waters are suitable for the enterprise headquarters--a "camp" or ranch. The resources traversed on pack trips are almost always public land or water or industrial forest, but the activity is handled by private enterprise, including nonprofit organizations. Pack trips may be made by foot, horseback, or canoe depending upon circumstances.

Transient camping grounds serve a quite different purpose than the others. The requirements are generally different although the transient camp and vacation camp tend to merge in some cases. This happens when an important tourist route traverses a desirable vacation area. The most important key element here is the tourist route. The transient potentials are adjacent to such highways, not even a mile away. This element should be appraised first and in many localities will be a limiting factor. The potential for transient camping grounds is largely for private enterprise. The emphasis is on convenience and facilities including automatic laundries, shower baths, sewage disposal connections, supply store, and the like.

Climate is very important in camping grounds potential, particularly vacation site and pack trip types. It is often very seasonal with cooler areas favored in summer and warmer areas in winter. Since vacation camping is predominantly a family activity, the cool summer areas have the greater opportunity. The source of clientele for camping is a wide area, larger than that for Vacation Cabins, Cottages, and Homesites, although the popularity of short weekend camping trips is increasing. Climate, therefore, needs to be distinctly favorable for outdoor living except for the transient type area. Pleasantly warm days with cool nights is the needed combination. This favorable climate should span the school vacation period--June, July, and August. In some areas, other periods are equally or more significant. The same analysis of Weather Bureau data from the S.D.U.C.'s in the outer zone up to a day's drive from the county that was used for Vacation Cabins, etc. will serve for appraising camping grounds potentials as well, except for the transient type. The climate in the areas of the county having other favorable attributes for camping must be distinctly better than that in the localities where the potential clientele come from.

Scenery parallels climate and natural areas in importance for vacation site and pack trip camping potential. For public areas the scenery should be exceptional: The choicest of the forested hills and mountains, rushing or expansive waters, and distinctive geological formations. Distant views are desirable. On private areas, the same concept applies, but in a lesser degree. The visible combinations of land forms, water, and vegetation need to be generally superior in attractiveness to those prevailing in the section of the country and should be "attractive" scenically by any standard. The extent to which such areas exist undeveloped is the measure of this element. The prevalence of desirable scenery and scenic areas in the county needs to be compared to the corresponding features of other areas that compete with the local county for vacationers' business. This judgment and the Inventory of Scenic Areas may be used as guides in rating this element.

Natural areas of good extent and quality are essential for the pack trip type of camping. Woods and water with plentiful vistas make delightful camping places on horse, foot or canoe trips far from the sound of motors. Natural areas are also important in the potential for vacation site camping grounds, especially so for additional development of the public sector. These would be camping grounds associated with public forests and parks, and the like. Natural areas with access roads make them available to



tent and trailer campers. The prevalence of desirable natural areas in the county needs to be compared to the corresponding features of other areas that compete with the local county for vacationers' business. This judgment and the Inventory of Natural Areas should be used as guides in rating the element for camping potential.

Widespread soils characteristics whose effects are not covered under "Scenery" or "Natural Areas" and that affect the potential for camping grounds--vacation site or transient--are generally negative. Large areas of soils with limitations that adversely affect water supply or waste disposal, or that have excessive muddiness and poor ability to dry out, or dustiness in dry weather, may affect the potential for camping development and can be limiting factors.

Existing Water Areas have been closely associated with the development of vacation site camping areas. Lakes, reservoirs, bays, ocean frontage, and rivers have commonly been chosen as locations for both public parks and private camping grounds. For this reason, many of the desirable locations on existing waters have been developed for this and competing uses. Undeveloped shorelines of accessible waters and the shores of remote waters that can be made accessible by new roads constitute potential for new camping grounds. All waters having such potential should be listed in the inventory and sections suitable and available for camping development indicated. Suitability will depend upon the character of the waters, their usefulness for swimming, boating, and fishing, and their setting with respect to the application of the other key elements discussed above. The rating of this element is based on the prevalence and distribution of such desirable and available areas.

Waters suited to canoe trip camping should be given special attention. These are generally streams of moderate rate of fall, often connected with lakes either directly or by short portages. Where canoe camping waters are appraised, the multiplier for Existing Waters should be raised, usually to three or four; the multipliers for Climate, Scenery, and/or Natural Areas may also need to be adjusted downward a point or two to obtain the proper relationship. Canoe waters are usually public although the adjacent land may be private.

Water Impoundment Sites may offer considerable potential for both vacation site and transient camping, but are more important to the former. The Inventory of Impoundment Sites should identify those of five acres and larger that would be suitable for swimming, boating, and fishing. The county might be given a high rating on

this element where such sites are frequent and of sizes over 20 acres. Such a site per 20 or less square miles might be considered frequent. Where good sites range one to 20-40 square miles, a medium rating is suggested, and where they are fewer than one per 40 square miles, a low rating. Only sites bordering along tourist routes would be counted in appraising potential for transient camping sites, but these may include smaller pond sites as well as large ones.

Tourist route highways are vital for transient camping potential. Each major tourist route traversing the county, both Federal and State highways, should be appraised as to its traffic load of tourists on vacation trips. Highway department people can help with this. Only routes carrying a heavy load of tourist--that is, vacationer--traffic in camping season should be counted. (Table 6, Column 16, Line 5 on S.W.S.) Tourist routes connecting with well-known camping regions are most important among the heavily traveled tourist routes. Counties having 200 or more miles of such routes may be given a rating of ten in this element. The rating would drop below this one point for each drop of twenty miles to a rating of one for a district having only twenty miles of such tourist routes. The final rating figure may need adjustment to account for the relation of the highways to camping regions or for any special significance of particular roads.

The access road system is a key element in appraising vacation site camping grounds potential. The percentage of the county that is within one mile of an all-weather road (Table 6, Column 17, Line 14 on S.W.S.) may be used for the rating, giving a point for each ten percent.

### III. Picnic and Field Sports Areas

These are basically areas developed for concentrated play activities other than golf, water sports, and winter sports. Some areas combine field and water sports, but generally an area is developed around one or the other group as the primary attraction. Competitive games using diamonds, courts, tracks, and the like are one type of development. Another concerns the shooting sports with ranges for rifle, shotgun, pistol, and archery activities. Many areas have special facilities for small children. There are a few highly specialized types, including tracks for power vehicles such as "go-carts."

Two activities included here require separate consideration from the rest although frequently associated with them. They are bicycling and picnicking. Their requirements are different and the key elements vary somewhat.

Bicycling, as an enterprise, may consist only of a headquarters where equipment is rented, sold, stored, and repaired. It may also include areas developed with bicycling paths, trails, or routes. The cycling paths are frequently on public forests or parks, or public secondary highways are used. Bicycling is more resource-oriented than most field sports although the enterprise location may not be. It frequently is operated as a concession on a public recreation area.

Picnicking is also more resource-oriented than field games. Frequently, picnicking areas are located in association with either field game areas or water sports areas. While most picnicking takes place on public areas--parks, forests, road-side rests, reservoir vistas, etc.--private picnicking facilities are of growing significance. This opportunity is enhanced by the provision of special services to groups, such as barbecues.

The key elements commonly involved in the three kinds of field sports areas are:

<u>Key Elements</u>	<u>Multipliers</u>					
	<u>Game, Play, Target Areas</u>			<u>Bicycling</u>		<u>Picnicking</u>
A. Climate	1 x	=		1 x	=	1 x =
B. Scenery				1 x	=	1 x =
E. Soils	1* x	=		1* x	=	1* x =
F. Water Areas						
Existing						1 x =
Water impoundment sites						1 x =
H. Population--Size & Distribution	3 x	=		3 x	=	3 x =
Age	1 x	=		1 x	=	
Income	2 x	=		1 x	=	1 x =
I. Proximity & Access						
Proximity	3* x	=		2* x	=	3* x =
Access Roads	<u>1 x</u>	=		<u>1 x</u>	=	<u>1 x</u> =
Total Element Weights	12			11		13
						Total Score _____



Total Possible Score	120	110	130
High Potential	81-120	76-110	86-130
Medium Potential	46- 80	41- 75	46- 85
Low Potential	0- 45	0- 40	0- 45

Climate locally affects both bicycling and picnicking. The comparison to be made is between the factors of climate--temperature and clarity of air, primarily--in the urban areas and in the nearby rural areas. Relatively small differences are significant if they apply during the daytime and early evening. If the temperature is ten degrees less at the activity area than in the city; if there is a fairly dependable breeze as compared with the dead summer air in town; if the air is free of smoke and other pollution; these advantages are to be appraised to rate the local climate for these activities. Local knowledge rather than published Weather Bureau data may be used to judge this element.

Climate may limit activities on game, play, and target areas at some seasons. Extremes of temperatures and depth of snow are the most likely limiting conditions. Where year-round use of such areas is limited by climate conditions, the top rating should be reduced a point for each month as limited. Local Weather Bureau data will help in judging this limitation.

Scenery has considerable significance for bicycling and picnicking. Here again, as with climate, it is a local appraisal that is involved. Commonly pleasant scenery--nice woods, some water, a somewhat varied topography, attractive vistas--as compared with the cityscape provides desirable environment for these activities. For bicycling the appraisal should include the scenic values of the whole area; for picnicking only the zones surrounding urban areas reachable in an hour need be included. The Inventory of Scenic Areas will help with rating this element, but a more comprehensive judgment of scenic values is needed too.

Soils may have a limiting effect on potentials for field sports areas. Large areas of soils with limitations that adversely affect the development of potable water and waste disposal systems will restrict the potential for play and picnic areas. Soil limitations involving muddiness and ability to dry out, or dustiness in dry weather, may affect the potential for any of the kinds of field sports areas. Extensive areas of rugged topography may sharply limit the bicycling potential and may also have some limiting effect on the other kinds of activities.

Existing Water Areas have particular significance for picnicking sites both because of scenic values and activity opportunities.

The inventoried waters within the one hour travel zone around urban centers and having undeveloped shores (lakes, reservoirs, bays, rivers, and ocean frontages) should be appraised for picnic site potentials and the prevalence of such sites given a rating. This rating may need to be adjusted to reflect the prevalence of farm ponds of one to five acres which also has significance for this type of development.

The prevalence of the inventoried Water Impoundment Sites in the one hour travel zone around urban areas should be rated for potential for developing picnic areas. The full range of sites inventoried should be considered and an additional judgment made on prevalence of sites for one acre or larger ponds (smaller than the reservoir potentials inventoried). Sites for reservoirs exceeding 50 acres may have more than a single possibility for picnicking sites and this feature of the larger sites should be considered.

The population of the L.A.I. that live in urban centers is a major key element in determining potential for picnic and field sports areas. The figure to use is the total for population centers of 5,000 and more. (Table II, Column 2-3, Line 47 on S.W.S.) Suggested rating scale is: 20,000-one; 40,000-two; 60,000-three; 80,000-four; 100,000-five; 150,000-six; 200,000-seven; 250,000-eight; 300,000-nine; 350,000 or more-ten. An upward adjustment may be needed if there are areas in the county that have large vacationing populations of nonresidents.

Age distribution of the population influences the potential for all these areas except picnicking. The key group is that from 15 to 29 years old. Current proportion of this group to total population is 20 percent. The percentage that the 15-29 group is of total population should be obtained for the L.A.I. (Table III, Column 4, Line 19 on S.W.S.) Using the 20 percent average figure for the 15-29 age class as the midpoint in the rating scale, or five, it is suggested that one point be added to or subtracted from the five rating for each  $\frac{1}{2}$  percent that the local figures deviate. Thus, if the local 15-29 age group makes up 22 percent of the population now, the rating for this element would be nine; if the population percentage is 19 percent, the rating would be three.

Income level of the population of the L.A.I. has substantial influence on potential for field sports areas, particularly related to private areas for competitive games, target sports, etc. (Table V, Column 12, Line 18 on S.W.S.) A rating schedule of seven for \$6,000 median family income is suggested with an adjustment of a point for every \$500 deviation in the local average from this figure. Thus, \$4,000 would rate three and \$7,500 or higher would rate ten.

Proximity to cities is a vital key element for this kind of enterprise. The extent of the county that is within 20 miles (one hour's travel) of urban centers in and out of the county is the basic consideration. This is appraised by limiting it to such areas that are adjacent to the system of numbered highways. This is Table VI, Column 17, Line 7 on S.W.S. A median rating of five could apply to a county where 50 percent of the highway system is within this 20-mile zone. Ratings might be adjusted up or down a point for each difference of ten percent.

Access roads in rural areas determine, in part, the locations where these day-use activity areas might develop. A good network of all-weather roads that brings most of the lands within one mile of such roads would justify a high rating. A great sparsity of such roads would limit the developable land to those fronting on the highway system. It must be remembered in making this judgment appraisal that limited access roads must be discounted to the extent that areas near them are inaccessible, in fact. This is Table VI, Column 17, Line 12 on S.W.S. A point for each ten percent of the county that is accessible is suggested for the rating.

#### IV. Fishing Waters

Fishing waters as recreation areas consist of any type of water area of any size that does or can furnish significant opportunities for catching fish by sport fishing methods. The fishing waters enterprise may include ownership, management, and control of the waters plus services or it may be limited to furnishing access and services at public waters.

While there are many variations according to the species of fish involved, the major division is between warm water and cold water fishing. Cold water fishing concerns various species of trout and salmon. All others are "warm water" fishing, including that on oceans and most large lakes.



Fishing waters potentials are heavily dependent upon existent or developable waters and their fishery management possibilities. All other elements are much less important as is indicated in the chart below.

<u>Key Elements</u>	<u>Multipliers</u>			
	<u>Warm Waters</u>		<u>Cold Waters</u>	
A. Climate	1 x	=	1 x	=
F. Water Areas				
Existing*	3 x	=	3 x	=
Impoundment sites	2 x	=	2 x	=
G. Fish Populations	2 x	=	2 x	=
H. Population--Size & Distribution	1 x	=		
Occupations			1 x	=
I. Proximity to Cities	<u>1</u> x	=	<u>1</u> x	=
Total Element Weights	10		10	Total Sc.
Total Possible Score	100		100	
High Potential	71-100		71-100	
Medium Potential	36- 70		36- 70	
Low Potential	0- 35		0- 35	

The effect of climate in determining whether waters are suitable for warm or cold water fish species is covered under the next three key elements. Climate also affects fishing waters potential in other ways. Seasons suitable for fishing depend upon climate. Comfort while fishing and its effect on the desires of fishermen, is largely a matter of climate. These matters should be appraised in terms of their effect on potentials for increased fishing interest in the county.

Existing water areas require appraisal as to the amount of additional fishing they could afford if improved services were offered, access improved, or fish management increased. This appraisal should also include the realistic potentials for renovating waters now polluted from chemical, organic, or erosional sources, or contaminated with weeds or trash fish. Biologists from the State fisheries agency, U. S. Fish and Wildlife Service, and some colleges can help with this analysis. The rating given would be based on the potentials for development of greater fishing use regardless of the present level of use. The Inventory of Existing Waters will serve as a guide in making this judgment.

Water impoundment sites offer opportunities for expanding fishing waters with additional area. The inventory of potential impoundment sites, five acres and larger, requires analysis as to adaptabilities of these potential lakes for fishing, either cold water or warm water. Past experience with impounded waters in the area should indicate which soils, water depths, and water surface areas produce good fishing. A judgment estimate, possibly based on sampling, is also needed of the potential for farm pond size (less than five acres) fishing waters. Those that would be fed by strong springs and that would make trout ponds should be given special attention.

The species of fishes that are well-adapted in the area are very important in evaluating potential for increasing fishing waters enterprises. Those areas where popular sport fishes abound or are adapted have a high rating on this element whereas areas not suitable for growing good populations and sizes of trout, salmon, bass, pike, and the like have lower rating. The important species of fishes should be listed and their potential for increase in existing or potential warm and cold water areas appraised. The rating should be a judgment of the potential increase as to both varieties of fish and quantities of fishable sizes, particularly the latter.

The size and distribution of the human population is a factor in evaluating growth potential for warm water fishing. Most fishing is based on local clientele. The more people there are, up to a point, the more there will be who desire fishing. The projected population of the L.A.I. is the figure to use (Table I, Column 2-3, Line 18 on the S.W.S.) A point of rating is suggested for each 20,000 up to 100,000; then another point for each additional 50,000 up to a rating of ten for a population of 350,000 or above. Cold water fishing potential is less affected by size and distribution of population since sportsmen will travel great distances for good trout and salmon fishing. Hence, where the potential for cold water fishing is high, the rating of this element should be raised accordingly.

The character of the population as reflected in their occupations has a bearing on the potential for cold water fishing. The higher the prevalence of the sportsman type that chooses fly fishing, spinning tackle, and other devices that heighten the sporting character of fishing, the higher will be the appraisal of this element. The population concerned should be that in the L.A.I. Since this segment of the total of licensed fishermen is not censused, the proportion of the professional and skilled among the total employed may be used as an indicator. (Table IV, Columns 8 and 9, Line 18 on S.W.S.) Using the U. S. average of 52 percent as having a five rating, a point adjustment may be made for each  $\frac{1}{2}$  percent variation in the L.A.I. figure.

Proximity to cities of the county affects the development potential for fishing waters enterprises. This element is measured along the network of all-weather highways. The extent to which warm waters--existing and potential--lie within 20 miles (an hour's drive) from urban centers is the convenient measure for warm water fishing. For cold water fishing, it would be the extent that cold water areas--existing and potential--lie within two hours' drive of urban centers. Where the fishing waters are distributed widely throughout the county, the percentage figure in Table VI, Column 17, Line 7 of the S.W.S. may be used to rate this element for warm water fishing and Column 17, Line 9 for cold water fishing. A point for each ten percent may be used in determining the rating. If the fishing waters are concentrated in one part of the county, a rating may be determined by dividing the length of roads within the zone (20 or 40 miles) and within the fishing waters area by the total length of all-weather roads (Table VI, Column 16, Line 4). By constructing a map showing the all-weather road system, the fishing waters areas (existing and potential), and the urban centers of 5,000-20,000, and 20,000 or more, the relationship can be measured.

## V. Golf Courses

Golfing activities are in two categories. First, standard golfing with courses of nine or 18 holes and the newly popular par-3 type of golfing; second, driving ranges and miniature golf. Standard and par-3 golfing use courses\* that have substantial resource requirements. However, these requirements are not exceptional and are flexible enough so that they can be met in most local areas. Golf driving ranges and miniature golfing enterprises are primarily user-oriented and have minimal resource demands. Thus, the key elements for golfing are largely related to population and location. These are:

<u>Key Elements</u>	<u>Multipliers</u>			
	<u>Standard and Par-3 Golfing</u>		<u>Driving Ranges &amp; Miniature Golfing</u>	
B. Scenery	1 x	=		
E. Soils*	1 x	=	1 x	=
H. Population--Size & Distribution	3 x	=	3 x	=
Age & occupation	2 x	=	2 x	=
Income level	3 x	=	1 x	=



# I. Proximity & Access

Proximity	<u>2</u> x	=	<u>3</u> x	=	
Total Element Weights	12	Total Sc.	10	Total Sc.	
Total Possible Score	120		100		
High Potential	81-120		71-100		
Medium Potential	41- 80		36- 70		
Low Potential	0- 40		0- 35		

Scenery has some significance for standard golf courses and for par-3 courses. However, this requirement for pleasant surroundings for golfing is easily met with open space and native vegetation that provides contrast in appearance and quiet to city streets. Only for regionally or nationally important tournament courses does scenery take on a high degree of importance. The rating for scenery, therefore, should be relative in terms of local scenic values. Those areas with the best local scenery and suitable for golf course layout (size, soils, topography, etc.) would score high. The basic scenic requirements are an unurbanized block of from 50 to several hundred acres of open space, moderate topographic relief (not flat, not steep), and a scattering of trees in clumps or woods.

Soils suitable for golfing must be well-drained or easily drainable, of gently rolling topography, and, preferably, not excessively droughty. Excessive stoniness is also undesirable. The soil rating should be limited to sections of the county that are within about 20 miles (an hour's drive) of urban centers. Ratings would range from ten where all soils are suitable to one where virtually no soils could be developed for golfing.

Size and distribution of population is extremely important in appraising potential for growth in golfing areas. The population of urban centers of 5,000 or more in the L.A.I. and the prospects for increase are the major measures. Important seasonal vacationing populations may need to be taken into account. (Table II, Column 2-3, Line 47 on S.W.S.) Rating may be based on a point for each 20,000 people up to 100,000 and a point for each additional 50,000 up to a rating of ten for 350,000 or more.

Age and occupation of the population is important in golfing. Since golfing is predominantly an activity of those beyond their youth years, the age group from 30 years up is the indicator. (Table 3, Columns 5 and 6, Line 19 on S.W.S.) This group was 49 percent of

the population in 1960. The 49 percent figure can be used as the middle rating point, or five, and a point be added or subtracted to the rating of five for every  $\frac{1}{2}$  percent the local figures are higher or lower. (Recent trends towards greater golfing participation by young people may have eliminated the age group as an element in some areas.) A higher-than-ordinary proportion of executive, professional, and business people (data from Table IV, Column 8, Line 18 on S.W.S.) favors development of golfing. Using a median rating of five for 20 percent of the employed population in the "professional" group, a point may be adjusted for every  $\frac{1}{2}$  percent deviation in the county figure. In areas where retired people are concentrated, or where there are substantial seasonal vacation populations, a favorable adjustment may be needed. The ratings for the age and occupation elements may be averaged to obtain the combined rating.

Income level is as important an influence in golfing potentials as for any activity. A rating schedule of seven for \$6,000 median family income is suggested with an adjustment of a point for every \$500 deviation in the L.A.I. figure. (Table V, Column 12, Line 18 on S.W.S.) Thus, a \$7,000 average income would have a rating of nine; a \$5,000 average would have a five rating.

Proximity to cities is a vital key element in golfing. The extent of the county that is within 20 miles of urban centers of 20,000 or more in and out of the county is the general measure. This is Table VI, Column 17, Line 8 on S.W.S. One point of rating is suggested for each ten percent.

## VI. Hunting Areas

Most rural lands have some value for some kind of wildlife. However, the potentials for quality hunting of wildlife on private and public lands good enough to significantly affect the recreation program and the local economy are much more limited. The appraisal of recreation potential here is restricted to quality hunting of this sort.

The hunting areas recreation category is conveniently divided into three subdivisions: Small game, big game, and waterfowl. If preferred, open land game, forest game, and waterfowl may be used. The requirements for these divisions are substantially different and thus, will be considered separately. Small game includes both

birds and mammals. The quails, pheasants, grouse, partridges, and turkeys (although the turkey sometimes is classed as "big game"), doves, pigeons, and woodcock compose the game birds. Rabbits, hares, squirrels, raccoon, foxes, and others are classed as small game mammals. Big game consists mainly of hoofed animals--deer, elk, moose, antelope, peccary, wild boar and bears. Waterfowl includes ducks, geese, shorebirds, and related kinds.

Recreation hunting areas are areas of land and water, public or private, where wild game is grown by habitat manipulation through farming, forestry, and game management methods. They are distinctly different from "shooting preserves" which are areas for the harvesting of domesticated game by shooting that simulates hunting. Small game is predominantly produced and harvested on private lands. Big game is produced on both private and public lands. Waterfowl are grown mostly on private lands and are harvested on both private and public lands and waters.

Hunting is regulated by State laws for sedentary species and by Federal and State laws for migratory species--waterfowl, doves, woodcock, etc. Hence, the potential for private development of hunting areas is influenced by these regulatory measures as well as by the elements considered here. The limiting effect of current game laws on this potential should be taken into consideration.

The key elements commonly important in the potentials for the three kinds of hunting areas are:

<u>Key Elements</u>	<u>Multipliers</u>					
	<u>Small Game</u>		<u>Big Game</u>		<u>Waterfowl</u>	
A. Climate	1 x	=	1 x	=	1 x	=
E. Soils	1 x	=	1 x	=	1 x	=
F. Water Areas						
Existing					#	
Impoundment sites					#	
G. Wildlife						
Habitat	5 x	=	5 x	=	5 x	=
Populations	3 x	=	3 x	=	3 x	=



<u>Key Elements</u>	<u>Multipliers</u>					
	<u>Small Game</u>		<u>Big Game</u>		<u>Waterfowl</u>	
H. Population						
Size & distribution	2 x	=	2 x	=	1 x	=
Income level					2 x	=
I. Proximity to Cities	1 x	=				
J. Rural Ownership Pattern	1 x	=				
Total Element Weights:	14	Total Sc.	12	Total Sc.	13	Total Sc.
Total Possible Sc.	140		120		130	
High Potential	96-140		81-120		91-130	
Medium Poten.	51- 95		41- 80		46- 90	
Low Potential	0- 50		0- 40		0- 45	

# Existing water areas and water impoundment sites have dominant influence on habitat for waterfowl and for this reason are included there.

Climate affects the usefulness of an area for hunting because: it either facilitates or impedes the hunters' mobility and comfort; it affects the degree of activity of the game. The influence of climate on productivity and mortality of game is covered under "Wildlife Habitat" and "Wildlife Populations," below, and is omitted here. Therefore, the rating is given on the effect climate has on the hunting process after the game is there. Unless there are particular, prevalent conditions that would discourage hunters from pursuit of local game such as excessive cold, heat, rain, or snow, the rating on this element would be high.

Soils may have specific correlations with the productive potential of areas for particular kinds of game. Wildlife biologists can advise on this matter. Certain limestone soils for pheasants, northern prairie soils for certain ducks, particular cropland soils for quail are examples of favorable soil-wildlife relationships. Some soil conditions may be unfavorable, such as shallowness, acidity, and drouthiness. Climate, soils, and habitat taken together make the environment which sets the natural productive capacity.

Wildlife habitat is the basic element that determines potential for hunting areas. As used here, it includes the influence of climate on productivity and mortality and includes water areas, existing and potential. Together with the soils, it constitutes the environment. Analysis of this element should be done for each species of huntable wildlife that has significant potential for increased hunting. These analyses are then combined for the three classes of game: Small, large, and waterfowl. A top rating would be accorded an area that has a predominance of habitat, or potential habitat improvable by management, capable of supporting maximum fall populations of the species involved. Wildlife biologists can furnish such data. As an example, optimum fall populations of bobwhite quail would be about a bird per acre; of white-tailed deer, an animal per five acres, etc. A county that had just a few huntable areas of high class habitat would have a minimum rating of one; one that is virtually all high-class habitat would rate ten. For waterfowl the capacity for attracting numbers of waterfowl in fall and early winter would be the measure with such areas as Back Bay, Virginia; Stuttgart, Arkansas, and Klamath River, Oregon, and California, examples of ones deserving a top rating. The extent of the potential for good hunting is the criterion.

It is important that the habitat element not be confused with the wildlife populations element. The existence of good populations is evidence of good habitat, but the reverse is not necessarily true. Biologists may be able to identify potentially good habitat that is presently incompletely populated for some reason other than quality of habitat. Where the reason is correctable, such good quality habitat should be included in the appraisal as such.

Wildlife populations may be considered as a separate element from habitat even though the two are closely related. Where other factors have not intruded seriously--such as man's poaching--wildlife populations may reflect the habitat quality and the rating then merely reinforces that for habitat. Where an important factor other than habitat limits the population, the ratings for the two may be different. The two together measure the present effectiveness of habitat and constitute most of the appraisal of hunting area potential. As with habitat, the analysis is done by individual species and then the appraisal rating given for each of the three groups of wildlife as applicable.

The size and distribution of the human population is the most important of the nonresource elements and is significant for all three kinds of areas. For small game the population to use is that of the L.A.I. (Table I, Column 2-3, Line 18 on S.W.S.) For big game and waterfowl the L.A.I. population adjusted to include the S.D.U.C.'s within 100 miles would be a suitable measure. A point of rating may be given for each 20,000 up to 100,000; then add another point for each additional 50,000 up to a score of ten for a population of 350,000 or more. This rating may then need to be adjusted for population distribution. For areas where the population is more than half in rural and urban units of less than 20,000, adjust the rating upward by a point; where the population is mostly in urban units of 20,000 or more, adjust downward a point.

The income level of the population in the L.A.I. is of importance in appraising waterfowl hunting area potential. Since good waterfowl hunting commands a relatively high price, it is to some extent related to hunters' income. A rating of seven is suggested for an average of \$6,000 median family income with an adjustment of a point for each \$500 deviation.

Proximity of urban centers is a significant element for small game hunting areas. This is usually one-day hunting from home. The proportion of the county that is within one to two hours' drive (about 40 miles) of urban centers of 20,000 or more, either in or near the county, is the measure. (Table VI, Column 17, Line 9 on the S.W.S.) A rating of ten is given where the entire county is so situated and a point reduced for each ten percent that is at a greater distance.

The pattern of rural ownership is an important element in appraising potential for small game hunting areas. Public agency ownership, corporate ownership, and ownership in large (over 180 acres) private farms are favorable to a good rating. Private estates, suburban developments, small rural home units of urban workers, and small farms incline to a poor rating. The criterion is based on the ease of making the hunting areas available to the public on either a free access or fee access basis. Census data on size of farms will serve as a guide to judging this rating. A point for each ten percent in Table VII, Column 7, Line 52 on S.W.S. is the suggested rating method.



## VII. Natural, Scenic, & Historic Areas

Natural areas and scenic areas have much in common. Most natural areas of significance have attractive scenery. Many highly scenic areas have natural areas included. Nevertheless, the two concepts are very different. Natural areas are valued for their aesthetic and scientific, wild and undisturbed character. Scenic areas are valued for their beauty. Both natural and scenic areas should be inventoried specifically for the county. Their potential for increased use, in total for each kind, should be appraised. The amount of new servicing facilities that would be needed to accommodate the increases in use is a phase of this appraisal. If the increase in use potential is very small, the rating would be low, if doubled, the rating might be five, if quadrupled or more, ten, assuming there is substantial present use. If such areas are not yet used appreciably, the rating would have to be made on the basis of estimates of increased recreation participation attracted in relation to present level.

Historic areas are sites of past events that are of sufficient interest to attract people seeking to learn and observe the background of their heritage. They range from homes of famous people such as Mt. Vernon and Monticello; memorials such as the Statue of Liberty and the gull monument in Salt Lake City; famed battle grounds such as the Alamo and Gettysburg; and similar places of nationwide interest to similar areas of regional and local interest. The more famed places are already redeveloped, restored, access made available and well publicized. The problem is to review local history with the help of historians, librarians, and others to evaluate potentials for additional such developments.

Natural, scenic, and historic areas, when considered as recreation attractions in themselves and having potential for increased use, are viewed mainly as tourist or vacationer attractions. They are mainly an opportunity for development by the public sector.

The key elements for each of these three kinds of areas are given below:

Key Elements	Multipliers				
	Natural		Scenic		Historic
B. Scenery*	4 x	=	5 x	=	
C. Natural Areas*	6 x	=	4 x	=	
D. Historic Areas*					5 x =
G. Wildlife					
Habitat		#			
Populations	1 x	=			

<u>Key Elements</u>	<u>Multipliers</u>					
	<u>Natural</u>		<u>Scenic</u>		<u>Historic</u>	
H. Population--Size and Distribution	1 x	=	2 x	=	1 x	=
I. Proximity and Access						
Proximity	1 x	=	1 x	=	1 x	=
Access roads	1 x	=	2 x	=		
Tourist routes	<u>1 x</u>	=	<u>1 x</u>	=	<u>3 x</u>	=
Total Element Weights	15	Total Sc.	15	Total Sc.	10	Total Sc.
Total Possible Score	150		150		100	
High Potential	101-150		101-150		71-100	
Medium Potential	51-100		51-100		36- 70	
Low Potential	0- 50		0- 50		0- 35	

# Included in "Natural Areas"

Attractive scenery is very important in appraising many kinds of natural areas but not in all and is not vital. For high value scenic areas, it is, obviously, vital. A general scale of values for rating scenery would give top rating of ten for the choicest places--the country's outstanding examples of the things people value most highly for their beauty. Mountains such as Grand Tetons, Great Smokies, and White Mountains; waters such as Niagara, Ausable Chasm, Yosemite, Monterey Point; land formations such as the Painted Desert, Palisades of the Hudson; etc. These are just a few examples of the superb ones. At the other end of the scale, rating one, would be scenic attractions that would barely justify consideration of modest developments for their enjoyment. The scenery appraisal for areas that would depend wholly upon their beauty to attract recreationists must be rated very strictly. When the scenic values are a part of a natural area that would attract people for its seclusion, its botanic or zoologic interests, or scientific study use, they should be judged less strictly. Thus, attractive waters that would rate four in a scenic area appraisal might rate six or seven as a part of a natural area. The inventories of natural and scenic areas provide the factual data on which to judge this rating.

Natural areas as an element in appraising the "natural areas" potential in a county is, obviously, the key consideration. Few counties will have true wilderness-type natural areas, but most will have relatively wild areas suitable for hiking, canoeing, nature study, etc. The criterion for rating is whether or not such areas have the characteristics to attract people to use them, either as public or private operations. The small, school-type "natural area" used for children's nature study--the plot of woods close to the school, for example--would not ordinarily be rated for our purpose here. Some of the types of areas that may be rated are: Extensive, roadless wooded areas; bogs, swamps, and marshes; extensive deserts or prairies; mineral-rich areas, undeveloped lake, river, bay, or ocean shores, distinctive botanical associations and animal habitats.

Natural area characteristics can contribute greatly to the value of scenic areas. Mountains and forests, unscarred by roads, mining and overcutting add materially to the scenic values. Likewise, interesting vegetation, animal life and geologic formations in their untouched and uninhibited states add much to the scenery. Thus, the contribution of natural areas to scenic areas needs to be appraised. Wildlife habitat as an element becomes a part of the natural area in this context.

Wildlife populations are frequently a particular and attractive part of a natural area and often deserve special attention. The bears so easily seen in certain parks (despite their often unnatural behavior), alligators in a Florida swamp, waterfowl around Chesapeake Bay, and chachalaces along the Rio Grande are outstanding examples. But wildlife need not be rare or unusual to have great attraction. The common birds, mammals, reptiles, amphibians, and insects in their natural surroundings are a fascinating part of many natural areas. The numbers of species present, their abundance and ease of observation, and their exceptional nature, where this is true, are combined into a rating for all the areas in the county.

The size and distribution of the human population is important to all three kinds of areas in this group. It is more apt to be of greater significance for scenic areas than for the other two. The population of the S.D.U.C.'s may be used as the indicator. (Table II, Column 2-3, Line 61 on the S.W.S.) Suggested rating scale, one to ten: 30,000; 70,000; 120,000; 180,000; 250,000; 330,000; 420,000; 520,000; 630,000; 750,000 or more.



Proximity of urban centers affects the potential for use of natural, scenic, and historic areas. This may be appraised by determining the number of S.D.U.C.'s that are within 150 miles of the county and using this number for the rating. (Table VI, Column 16, Line 10 on S.W.S.)

Access roads are as important as tourist routes for appraising potential of natural and scenic areas, particularly the latter. The degree to which the county (or the inventoried areas) are reached by all-weather roads is the criterion to follow. Where all significant portions of all natural and scenic areas are reachable by such road, the rating is ten. For each ten percent that are not served by existing or planned roads, one point may be deducted. Access here is defined as reaching points where the planned use of the areas is feasible. Where the natural and scenic areas are widely distributed through the county, Table VI, Column 17, Line 14 on the S.W.S. may be used as an indicator.

Tourist routes affect the potential for development of all kinds of areas and especially where the areas are of a quality to attract more than local trade. The miles of such routes in the county that carry large volumes of tourist traffic is a suitable item to rate. (Table VI, Column 16, Line 5 on S.W.S.) A point may be given for each twenty miles or more of such routes.

### VIII. Riding Stables

Horseback riding may be an activity in a recreation enterprise of a broader sort--such as a guest ranch or a group camp--or it may be the sole activity of an enterprise. In either case, the enterprise may include the resource area on which the riding is done or it may merely provide the services that enable the riders to make use of a public area having bridle trails. Whether or not the riding area is public or private land, the activity is closely resource-oriented, particularly to scenic natural areas. Further, the enterprise is almost always privately operated, even when located on public land.

We are concerned here with enterprises involved primarily with horseback riding. Thus, the riding that occurs far from cities on vacation farms and guest ranches is covered under those types of enterprises.

Pony rides for children that are confined to paddock or ring riding are often a part of an urban children's play park although some riding stables also offer children's pony rides.

<u>Key Elements</u>		<u>Multipliers</u>	
A. Climate		1 x	=
C. Natural Areas		3 x	=
H. Population			
Size and distribution		2 x	=
Age		1 x	=
Income level		2 x	=
I. Proximity to Cities*		<u>3</u> x	= <u>        </u>
Total Element Weights		12	Total Score
Total Possible Score		120	
High Potential		81-120	
Medium Potential		41- 80	
Low Potential		0- 40	

Climate has some influence on the potential for horseback riding enterprises through the deterrence of severe winter weather and periods of rain or snow. Areas having open winters with relatively little snow and those having a high number of sunny days are favored in these respects. For rating purposes, an average of the two figures derived as follows is suggested: (1) a rating of one point for each ten percent of potential sunshine during the year. This would have to be an approximation based on the monthly figures. Where this sunshine data is not available, an estimate can be made by group knowledge of the local climate; (2) a rating of one for 108 inches or more average yearly snowfall and an additional point for every 12 inches less. (Table VIII, Lines 33 through 44, and Line 73 on S.W.S.)

Natural areas are important for high quality horseback riding except for paddock and field activities such as riding instruction, jumping, and horse shows. Riding horseback, like hiking and bicycling, is one of the ways of getting away from city environment, out where the surroundings are attractive and quiet. Areas for bridle trails need not be very large nor do the resources have to be exceptional. Ordinarily, attractive topography, woodlands, creek valleys, field edges suffice where superb scenic values are unavailable. The rating must be a judgment as to whether the available natural areas are abundant or scarce, of better than average quality, and of adequate size. The inventory of natural areas may serve as a guide.

Size and distribution of the human population is a very important element. This involves not only the location of urban centers but also of concentration points of vacationing people. Thus, the potential for riding stables is affected by large numbers of people visiting State and National parks and the like as well as by resident populations. The rating may be based upon the resident population in the L.A.I., that is in urban centers of 20,000 or more. (Table II, Column 2-3, Line 44 on the S.W.S.) A point is suggested for each 20,000 up to 100,000 and another point for each additional 50,000 up to a rating of ten for 350,000 or more. This rating may then be adjusted upward if important resort or public recreation areas are present that attract seasonal populations and would offer additional potential beyond the influence of the urban centers.

Age levels of the population also influence the potential for riding stables. The age group 15-44 in the L.A.I. may be taken as the key group. (Table III, Columns 4 and 5, Line 19 on S.W.S.) In 1960 they were 40 percent of the population. The local figures may be compared to this figure used as the median point--five rating. Each half a percent deviation may change the rating by a point.

Since horseback riding is a relatively expensive pastime and is rarely provided free by government or quasi-public groups, income level is an important element in the potential for development of riding stables. A rating schedule of seven for \$6,000 of median family income is suggested with an adjustment of a point for every \$500 deviation. (Table V, Column 12, Line 18 of S.W.S.)

Proximity to urban centers is a vital key element for riding stables and can be a limiting factor. (The exception, already noted, is the presence of areas of concentration of vacationing people that would encourage horseback riding.) A zone, one mile each side of all-weather highways, or prospective highways, within 20 miles of urban centers of 20,000 or more is computed. (Table VI, Column 17, Line 8 on S.W.S.) A figure of 50 percent would have a five rating. A point would be subtracted for each ten percent below 50 and added for each ten percent above 50.

#### IX. Shooting Preserves

Shooting of stocked, domestic game under conditions simulating natural hunting has been done in parts of the U.S. for several decades. Some of these shooting "preserves" were club arrangements and some commercial. However, the interest in this type of recreation has grown rapidly since World War II and its potential still lies mainly in the future.



Almost all of the game used on shooting preserves is of four species: Ring-necked pheasant, bobwhite quail, chukar partridge, and mallard duck. Some other quails, partridges, pheasants, and wild turkeys are occasionally offered and a few mammals, mostly deer and wild boar.

The operation is a combination of two or three activities: Farming the land to grow crops and control vegetation; raising game (or purchasing it from a game farm); and, raising, training, and handling bird dogs. It is, therefore, a complicated and demanding kind of enterprise.

The key elements in appraising the potential for growth of shooting preserves are:

<u>Key Elements</u>	<u>Multipliers</u>	
A. Climate*	1 x	=
B. Scenery	1 x	=
E. Soils*	2 x	=
H. Population		
Size and distribution	2 x	=
Age and occupation	1 x	=
Income level	3 x	=
I. Proximity to Urban Centers	<u>2 x</u>	=
Total Element Weights	12	Total Score
Total Possible Score	120	
High Potential	81-120	
Medium Potential	41- 80	
Low Potential	0- 40	

Climate has a general influence on the suitability of areas for shooting preserves. However, since the shooting activities are limited to the fall and winter months, the primary importance of climate is in the most northern States. Here the winters set a restrictive term to the period of customer interest and activity. In the coldest and snowiest sections, this element becomes a limiting factor. Since most of the business comes on weekends (and some States will not permit Sunday operation), there must be a long enough season of good weather to permit an adequate volume of business to justify the enterprise. Hence, climate is most

significant as a limiting factor. Otherwise, it may be rated in terms of the prevalence of pleasant bird hunting weather from September through March.

Scenery has some influence on the potential for shooting preserves. The shooting activity is more enjoyable in pleasant surroundings. A gently rolling topography, not flat, but not steep, with a mixture of crop fields, grass, hedges, ponds, and woods is most suitable. Completely open land farms and extensive wooded areas detract from the potential. In addition to the immediate scenery, areas of suitable makeup with attractive distant scenery would receive highest rating.

Soils are very important for successful shooting preserves. Productive agricultural soils suitable for efficient growth of grains and grass crops are needed. Use by shooters is easiest on soils that are well-drained and easily traversed. The prevalence of productive LUC Classes I, II, and III soils is the criterion here.

Population size and distribution is critical in appraising potential for this type of enterprise. The population in urban centers of 20,000 or more in the L.A.I. is a suitable indicator. (Table II, Column 2-3, Line 44 on S.W.S.) Assign a point for each 20,000 of this population up to 100,000 and add another point for each additional 50,000 up to 350,000 or more. Adjust upward a point or more if the projected increase from 1965 to 1980 is over 25 percent.

Age and occupation of the L.A.I. population also have significance for shooting preserve potential. The age group from 30 up may be used to measure this phase of the element. (Table III, Columns 5 and 6, Line 19 on S.W.S.) This group composed 49 percent of the 1960 population. Where the urban population, as used here, included 49 percent in the 30-up age group, a rating of five would be given. An adjustment of a point for each  $\frac{1}{2}$  percent of deviation is suggested. This rating would then be further corrected for the influence of the occupation part of this element.

The main source of business for shooting preserves is among the professional, technical, managerial, official, and proprietor occupations. (Table IV, Column 8, Line 18 on the S.W.S.) These composed 20 percent of the total employment in 1960. Using this figure as median, with a rating of five, each deviation of  $\frac{1}{2}$  percent would adjust the rating a point. Then the ratings for age and occupation would be averaged to give a figure for this element.

Income level in the L.A.I. is very important in appraising potential for shooting preserves. A rating schedule of seven for \$6,000 median family income is suggested with an adjustment of a point for each \$500 deviation. (Table V, Column 12, Line 18 on the S.W.S.)

Proximity to urban centers is also very important in this enterprise. The proportion of the highway system in the county that is within 40 miles of urban centers of 20,000 or more that are in the L.A.I. may be used as the criterion with one point of rating for each ten percent of the length of highways. (Table VI, Column 17, Line 9 on the S.W.S.)

#### X. Vacation Farms and Ranches

The backgrounds of vacation farm and guest ranch development varied substantially. The "summer boarder" business in the East and the "dude" ranch in the West were not much alike. In recent years they have come to essentially the same type of operation although emphasis on horses and "wrangling" continues more strongly on ranches. Basically, each houses, feeds, and offers recreation activities on a vacation basis for urban people. Both are heavily resource-oriented and both place quite a lot of emphasis on home-cooked meals, country living, and a variety of activities. Both are strictly rural in their "atmosphere." The term "ranch" as used here means an operating livestock enterprise. The term "dude ranch" has recently been used also to mean horseback riding enterprises that combine with rural living accommodations or motel-centered enterprises that offer horseback riding and other recreation activities.

The key elements for appraising the two kinds of enterprises covered here vary somewhat but tend to merge where farming and ranching intermix. They are:

<u>Key Elements</u>	<u>Multipliers</u>			
	<u>Farms</u>		<u>Ranches</u>	
A. Climate*	3 x	=	3 x	=
B. Scenery*	2 x	=	3 x	=
C. Natural Areas	2 x	=	3 x	=
E. Soils	1 x	=		
F. Water Areas				
Existing	1 x	=	1 x	=
Impoundment sites	1 x	=		



<u>Key Elements</u>	<u>Multipliers</u>	
	<u>Farms</u>	<u>Ranches</u>
I. Proximity to Cities	1 x =	
J. Rural Ownership & Land Use Patterns	3 x =	3 x =
Total Element Weights	14 Total Score	13 Total Score
Total Possible Score	140	130
High Potential	96-140	91-130
Medium Potential	51- 95	46- 90
Low Potential	0- 50	0- 45

Climate is very important. The climate during the vacation periods must be attractive for the time of year. It must be a favorable change from that in the urban areas where the potential clientele come from. Unless parts of the county have distinctly favorable climate, it can be a limiting factor. A top rating would apply to farming or ranching areas situated in recognized vacation country--frequently associated with high elevations (for summer), warm days, cool night temperatures and lots of sunshine. Weather Bureau data on monthly average mean temperatures and percent of possible sunshine for the vacation season may guide the rating of this element. (Table VIII, Lines 33 through 57 on the S.W.S.) Where a comparison of the weather data for sunshine or temperatures in the local and distant stations reveal equality of the data, a rating of five is suggested. An adjustment of a point of rating for each variation of one (percent or degrees) in the pertinent seasonal averages may then be made. The rating thus arrived at for each set of data may then be averaged to give the final rating.

Scenery is about as critical as climate in evaluating potentials for these enterprises. Since they cater only to vacationers who will be staying a substantial length of time, very attractive surroundings are expected. However, as with climate, this is a relative matter, particularly for farms. The scenery needs to be very attractive in relation to that where the clientele come from--the city-suburb areas. The typical client zone for vacation farms is 50-300 or more miles away while for ranches it extends farther. Scenery should be evaluated in comparison with other competing areas having scenic values in the zones of vacation choice around the S.D.U.C.'s.

Natural areas are an important element in the evaluation of vacation farms and guest ranches. They do not necessarily have to be on the properties that may be in this business but must be nearby. They are a part of the drawing power of an area for the kinds of vacations sought on farms and ranches. The inventory of natural areas should be analyzed as to its significance in encouraging and supporting these enterprises. Both extent and variety of natural areas should be included. The rating on this element should also be determined, in part, in relation to the natural areas of adjacent areas that might compete for the vacation business of the same urban areas. This requires a broad knowledge of the existence of natural areas. This appraisal can benefit from help of resource specialists in State or regional agencies and offices who are familiar with large segments of States or regions.

Soils have significance for vacation farms as an appraisal element. Widespread areas of unproductive soils or soils that can be excessively muddy or gummy and dry out slowly, or ones that can be excessively dusty may affect the possibilities for use of farms as vacation-serving enterprises. Similarly, extensive areas of soils unsuited for septic tanks may be limiting.

Existing water areas may enhance the possibilities for developing adjacent farm and ranch lands for vacation purposes. Where all localities have such waters available, the rating would be ten; where no waters for such use are available, a zero rating would apply; and in between situations in proportion. The inventory of existing waters and the prevalence of good-quality farm and ranch ponds will help with this analysis.

Water impoundment sites can be as important as existing waters in some areas in appraising this potential. The inventory of new impoundment sites and the prevalence of good small pond sites may be related to localities suitable for vacation farms and ratings assigned in the same way as for existing waters.

Proximity to S.D.U.C.'s of vacation farm areas is significant in the same way it was for Vacation Cabins, Cottages, and Homesites. The location of S.D.U.C.'s in the one day's auto travel (up to 300 or more miles) zone around the county is the criterion. Numerous cities in this zone would warrant a high rating. Where the S.D.U.C.'s are more concentrated in the inner 50-150 mile portion of the zone, the rating would be higher than where they are mainly in the outer part of the zone. The number of S.D.U.C.'s in the 50-150 mile zone may offer a suitable rating. (Table VI, Column 16, Line 10 on S.W.S.)

Rural ownership and land use patterns have a strong influence on the potential for both vacation farms and guest ranches. A favorable pattern for potential vacation farms is a long-stabilized ownership of family-type farms of medium size, 100-259 acres, with general farming, livestock or dairy enterprises. These often have large, quite old farm homes. Unfavorable indicators are highly specialized farms growing vegetables, tobacco, cotton, etc.; very small farms, part-time farms, non-farm rural homes, strongly commercial farms employing considerable labor, absentee-owner properties, estate-type farms. A favorable ownership pattern for guest ranches is long-stabilized ownership of family-size ranches with little hired help and intermixed with or adjacent to scenic public lands. Unfavorable indicators include very large size operations, absentee ownership and estate-type ranches. The rating of this element may be guided by data from the Agricultural Census (Table VII, Column 7, Lines 37 and 45 on the S.W.S.) A point of rating for each 20 percent may be assigned and the two figures added to give the final rating.

#### XI. Water Sports Areas

Areas of land and water devoted primarily to swimming, boating, water skiing, and skin diving are among the most popular for outdoor recreation today. Prospective increase of demand is high and the need for appraising future growth potential especially important. It should be noted that enterprises using land and water primarily for fishing are covered under "Fishing Waters," but many of the Water Sports Areas will also include fishing services. Likewise, picnicking, camping and field sports facilities are frequently associated with water sports areas. The distinction is whether picnicking, camping, etc. are incidental to water activities or water activities incidental to the others.

Water sports areas are, obviously, heavily dependent upon existing and potential waters and the list of key elements reflects this dominance.

<u>Key Elements</u>	<u>Multipliers</u>	
A. Climate*	1 x	=
B. Scenery	1 x	=
F. Water Areas		
Existing*	4 x	=
Impoundment sites*	3 x	=

<u>Key Elements</u>	<u>Multipliers</u>	
H. Population		
Size and distribution	2 x	=
Age and occupation	1 x	=
I. Proximity to Cities	<u>1</u> x	=
Total Element Weights	13	Total Score
Total Possible Score	130	
High Potential	91-130	
Medium Potential	46- 90	
Low Potential	0- 45	

Climate may limit the season of use of waters and in cold regions render waters unsuited for swimming. The degree to which these limitations apply should be reflected in the rating.

Scenery is one of the lesser key elements affecting potential for water sports areas, but still important. Applicable areas of scenery are those in view from existing water areas and from sites of possible water impoundments. The rating should be in terms relative to the general scenery of the county. Where very attractive topography, trees, and other vegetation surround the sites, a high rating would apply; where unattractive buildings, structures, misused land, etc. are in view, the rating would be low. A composite rating has to be gauged from the sum of the appraisals of scenery around each water area and site in the inventories.

Existing water areas is often the most important element in this appraisal in relation to immediate potential. In areas lacking new impoundment sites, it encompasses the whole potential and, if low in rating, becomes a limiting factor. The inventory of existing waters is analyzed to appraise development potential for new water sports areas. Rating may be made on the basis of extent of shoreline suitable and available, taking into account the capacity of the water areas to accommodate increased traffic of boats. (Power boating requires three acres of open water per boat and water skiing requires five acres.)



Shoreline and water may be considered suitable when: (1) the shore is not obstructed for development by marshes, muck areas, cliffs, excessive rockiness, etc.; (2) water depths are adequate for recreational uses and not obstructed by underwater obstacles such as stumps, ledges, etc.; (3) water levels and adequately stable for recreation use; (4) water temperatures are suitable for various recreation activities (water might be all right for boating but too cold for swimming or too warm for trout); (5) the water quality is not impaired for recreational use by serious pollution. The rating should be highest where good conditions prevail for all types of water recreation and reduced to the degree that any types of recreation are unsuitable or that quantitative limitations on any recreation use exist. The rating may also be affected by any legal restrictions, such as water rights and public health laws, that may limit recreation use and development. These may be temporary, however, and may not be critical in the long run. Suitable and available shoreline (and area capacity) of 100 miles or more might receive a top rating of ten with one less point for each ten miles below 100.

The number of water impoundment sites may be an extremely important key element in this appraisal. In areas low in existing waters, it may encompass most of the potential. In areas of abundant but highly developed existing waters the potential for growth may lie largely in the new water sites. The inventory of impoundment sites should be analyzed site by site to appraise potential for water sports areas on them. Area of water and length of shoreline of suitable character (see previous paragraph) are used to estimate boat capacity, beach locations, etc. Quality of the water is a factor that will lower the potential if serious pollution (sediment, chemicals, organic) is involved. Rating may be made as with existing waters, a point for each ten miles of shore suitable for use. An alternative would be to give a point for each 100 acres of water suitable for boating and combining the two in an average.

Size and distribution of population is an important element here. Since swimming and boating are heavily day-use activities, the waters must be near population centers to develop full use. The population of the urban centers of 5,000 and more in the L.A.I. is the needed figure. (Table II, Column 2-3, Line 47 on S.W.S.) A point may be given for each 20,000 up to 100,000 and an additional point for each 50,000 up to 350,000 or more which would rate ten.

Age and occupation of the population affects the potential for water sports areas. Swimming is heavily a youth activity; boating is a young-family activity. Boating is more popular in families of the skilled labor class than others and also is popular with people in other well-paid occupations. The age group from 15-44 in the L.A.I. may be used as the age criterion. (Table III, Column 4 and 5, Line 19 on S.W.S.) A figure of 40 percent for 1965 may be used as the median rating--five with a point adjusted for every  $\frac{1}{2}$  percent of deviation from average in the local population. An adjustment in this rating should be made--a point up or down--if the population includes a percent more or less than 32 percent of skilled tradesmen. This group includes "craftsmen," "foremen" and "operators" in the U. S. Census classification and composed 32 percent of the employed in 1960. (Table IV, Column 9, Line 18 on S.W.S.)

Proximity to cities is a significant element in appraising this potential. The extent to which the water and potential water areas of the county are within 20 miles of urban centers of 5,000 or more is the general measure. (Table VI, Column 17, Line 7 on S.W.S.) Where all areas are within 20 miles of such centers, a top rating of ten may be given. A point less is given for each ten percent of the areas that lies beyond this 20-mile zone.

## XII. Winter Sports Areas

Winter sports areas generally center around snow skiing. Additional activities that may be offered include tobogganing, ice skating, sledding, ice hockey, sleigh rides, ice boating, snowmobile trips, curling. All are dependent on the kind of winter weather prevalent in an area. Since skiing is so often the hub of the enterprise, the appraisal usually will be based mainly on its potential.

Key elements to be used in appraising the winter sports area potential are:

<u>Key Elements</u>	<u>Multipliers</u>
A. Climate*	4 x =
B. Scenery	1 x =
E. Soils*	3 x =
F. Water Areas	
Existing	1 x =
Impoundment sites	1 x =

<u>Key Elements</u>	<u>Multipliers</u>		
H. Population			
Size and distribution	1 x	=	
Age	1 x	=	
Income	1 x	=	
I. Proximity and Access			
Proximity to cities	1 x	=	
Access roads*	<u>1 x</u>	=	
Total Element Weights	15	Total Score	
Total Possible Score	150		
High Potential	101-150		
Medium Potential	51-100		
Low Potential	0- 50		

Climate for good winter sports area potential must have: Long winters; a large number of below-freezing days; snowfall that is frequent and substantial. These characteristics of the climate need be judged only for specific locations in the county that are otherwise feasible for winter sports. In most areas, these will be locations in the coldest and snowiest sections. A season of 120 days or more is needed for economical operation. This period may be measured from the date of the first 16 degree F. temperature in the fall to the last one in the spring. (Table VIII, Line 72 on S.W.S.) Ratings for both temperature and snowfall should be made and then averaged. For temperature a rating of one for a 120 day season may be used and a point added for each additional six days. For snowfall a rating of one for 60 inches of annual fall may be used and a point added for each additional six inches. Where either temperature or snowfall fails to meet the minimum conditions, climate becomes a limiting factor. Inadequate natural snowfall can be augmented with artificial snow machines, but this installation requires a high potential of use for economic justification. It should be noted that the lower ranges of acceptable temperatures and snowfall would apply to developments that are local in scope. Winter sports areas designed for widespread appeal and tournament-type activity would need to have a very high climate rating.

The scenery element in appraising winter sports area potential includes only the aesthetic aspects of the landscape. Topography and aspect are covered under "soils." In a general sense, the scenery needs to be attractive for developments of local use. The wider the appeal for clientele, the broader the competition for business will be and the more choice the scenery must be. The top rating of ten would apply to a county that has an abundance of choices of slopes having superb scenery, selections from which could then be made on the basis of other key elements. The ratings would then drop down as the frequency and scenic quality of such areas became lower to a rating of one for a county that had only one or two suitable areas of ordinarily pleasant scenic value.

The soils element need only be examined for those locations in the county that meet the climate requirements. Skiing areas need 100 acres or more of ten to 60 percent slopes with north to northeast exposures. Northwest exposures can be used under excellent climate conditions. The frequency with which such units can be found is the approach to the rating. Several acres of relatively level land adjacent to the slopes are also needed. Other favorable soil properties for skiing areas are adequate soil depth to grow good grass and prevent slippage and erosion, medium texture, and good drainage. Adverse soil properties include shallowness, poor drainage, excessive drouthiness, excessive clay or sand content, and excessive stoniness or rockiness. A rating of one is suggested where there are only one or two suitable land units up to ten where ten or more choices are available.

Existing water areas and water impoundment sites each have some bearing on the potential for winter sports areas. Where winter sports using open ice are especially important, the weights of these elements may need to be raised. These elements for ski areas need be rated only in locations adjacent to areas already judged suitable as to climate and soils. One value is their use for skating, hockey, and other ice sports. The other is as a source of water for artificial snow-making. The significance of this latter use is enhanced where alternative water supplies are unavailable and where the climate element is not rated very high.

Size and distribution of population is significant in two degrees. For local developments the population of the L.A.I. in urban centers of 5,000 or more may be used. (Table II, Column 2-3, Line 47 on S.W.S.) This basis may need to be adjusted if the potential areas are concentrated in one locality and the majority of the population centers are in another locality 40 or more miles distant. The rating may be based on a point for each 20,000 up to 100,000 plus an additional point for each 50,000 up to 350,000 or more. For ski areas with



potential for attracting clientele from greater distances, the population of the S.D.U.C.'s should be included. (Table II, Column 2-3, Line 61 on S.W.S.) Rating for this high level potential may be one for 30,000 with the scale increasing for 70,120, 180,000, etc. up to ten for 750,000.

The age of the population is important in winter sports area appraisals. The group aged 15 to 29 in the L.A.I. is the statistical class to use. A median figure for 1965 may be taken as 20 percent which would be rated five. (Table III, Column 4, Line 19 on S.W.S.) Each deviation of  $\frac{1}{2}$  percent from these figures would adjust the rating a point.

Income is an important element, especially for skiing and for potentially choice developments. A rating of seven for a \$6,000 median income for the L.A.I. is suggested with an adjustment of a point for each \$500 deviation. (Table V, Column 12, Line 18 on S.W.S.) Where the potential is for large, choice developments, the figure for the S.D.U.C.'s should be used. (Table V, Column 12, Line 31 on S.W.S.)

Proximity to cities affects winter sports area potential somewhat stronger than many other kinds of activity areas due to the greater difficulty in winter travel. The road distances on the highway system between the potential winter sports localities in the county and the urban centers of 5,000 or more may be used as the criterion. Where all areas are within 20 miles of such centers (Table VI, Column 17, Line 7 on S.W.S.), a top rating of ten may be given. A point less is given for each ten percent of the areas that lie beyond this 20-mile zone.

Access roads present a special problem for winter sports areas due to winter weather. The proportion of the number of potential winter sports areas that are served by present or planned all-weather roads is the measure. This percentage is applied to ten to give the rating.

### Summary of Appraisals

The end result of this appraisal process is a group of conclusions regarding the potentials for future development of the important kinds of recreation areas and enterprises. Initially, these conclusions are in the form of a numerical score for each kind of development and an adjective interpretation of that score. These data may be placed on a standard summary sheet which is provided.

These numerical and adjective appraisals are only indicative of the level of opportunity. In order to be meaningful, each score and adjective appraisal needs to be backed up by a narrative summary of the main considerations that went into making the appraisal. Among the descriptive comments that may be appropriate are:

1. Distinction between the potential for private lands and for public lands;
2. Localities where the potential mainly applies;
3. Associations of the potential with specific resources, such as named bodies of water, mountains, forests, farming areas, wilderness areas, shores, etc.;
4. Quantitative estimates of the potential where appropriate (such as specifically identified snow skiing potentials, water sports areas at particular impoundment sites, etc.);
5. Relations of the potential to other developments, such as highways, industries, flood control, etc.;
6. Conditions that may apply, such as maintenance of pollution-free waters, reduction of air pollution, enactment of needed laws, provision of irrigation water, etc.

The summary should be prepared in some form of a report or publication to be made available to those who need the information. In addition to the appraisals themselves, as described above, the report may be made more comprehensive and useful if other related information is included. The decision on form and extent of the report may follow guidelines provided at the State level or may be decided locally on the basis of local interest and need. Some of the additional items of information that may be included are:

1. Maps depicting locations of urban areas, highways, political boundaries, inventoried items, wildlife habitat and populations, etc.;
2. A summary of the inventory of existing recreation developments, private and public, and maps showing locations;
3. A description of the key elements used in the appraisal and how they were applied to each kind of development potential;

4. Inventories that were made in connection with the appraisals;
5. Summary of the statistics gathered and used in making the appraisals.

Some of these may be included in an appendix rather than in the body of the report.

This summary will be made as the last step in the appraisal. However, the highlights of the summary may well be placed in the front of the report.





